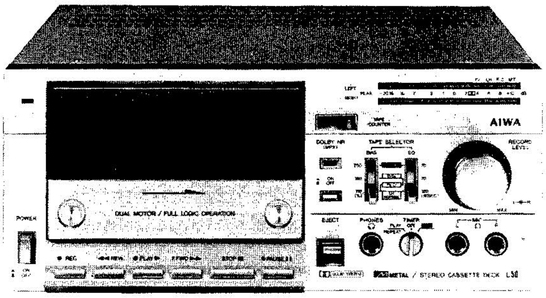
STEREO CASSETTE DECK

MODEL NO. SD-L50 E,K,G

AIWA®

[SERVICE MANUAL]

Code No. 19-300-000-36



DATE OF ISSUE 7/1980

SPECIFICATIONS

Semiconductors:	E, K model 11 IC's, 69 transistors, 40 diodes 29 LED's G model 11 IC's, 66 transistors, 39 diodes 29 LED's
Power supply:	E model AC 220V, 50 Hz K, G model AC 240V, 50 Hz
Power consumption:	18W
Dimensions:	250(W) x 105(H) x 260(D) mm
Weight:	4.5 kg
Track type:	4 tracks 2 channel
Tape speed:	4.8 cm/s ± 1.5%
Wow and flutter:	According to DIN 45500 Less than 0.1% Less than 0.04% (WRMS)
Automatic stop system:	Full auto stop
Automatic shut-off action time:	3 ± 1 s.
Pinch roller pressure:	350 ± 30 g (3.43 ± 0.29N)
Take-up torque:	50 ± 10 g-cm (490 ± 98 mN·m)
FF & rewind torque:	155 ± 65 g-cm (1520 ± 637 mN·m)
FF & rewind time:	90 s. (C-60)
Play back output: (TTA-161)	0.58 ± 0.05V (LINE, DIN)
Play back noise:	Less than 2.0/1.5 mV (CrO$_2$, DOLBY NR OFF/ON) Less than 2.5/1.5 mV (LH DOLBY NR OFF/ON)
Rec./PB output: (TTA-119G)	0 VU ± 1.5 dB (LINE, DIN)
Rec./Pb distortion:	Less than 1.1% (METAL) Less than 2.0% (CrO$_2$) Less than 1.2% (LH)
Rec./Pb SN ratio: (1 kHz, Unweighted)	More than 45/45 dB (METAL, DOLBY NR OFF/ON) More than 45/47 dB (CrO$_2$, DOLBY NR OFF/ON) More than 42/43 dB (LH, DOLBY NR OFF/ON)

Channel separation: (1 kHz, 0 VU)	More than 35 dB	
Cross talk: (1 kHz, 0 VU)	More than 65 dB	
Erasing ratio: (400 Hz, 0 VU, +10 dB)	More than 60 dB	
Bias frequency:	85 kHz	
Frequency response:	METAL	25 ~ 17,000 Hz
	CrO$_2$	25 ~ 27,000 Hz
	LH	25 ~ 15,000 Hz
Motor:	DC servo motor (capstan) DC motor (reel)	
Inputs:	MIC max. sensitivity 0.3 mV (200 Ω ~ 10 kΩ suitable)	
	LINE IN	Max. sensitivity 50 mV (Optimum load impedance more than 50 kΩ)
	DIN	Max. sensitivity 0.1 mV/kΩ (2.7 kΩ)
Outputs:	LINE OUT	Standard level 0.41 V (0 VU) (Optimum load impedance more than 50 kΩ)
	DIN	Standard level 0.41 V (0 VU) (Optimum load impedance more than 50 kΩ)
	PHONES	8 Ω

- Specifications and external appearance are subject to change without due to product improvement.
- Dolby Noise Reduction System is licensed from Dolby Laboratories.
- The name "Dolby" and DD symbol are trademarks of Dolby Laboratories.

DISASSEMBLY INSTRUCTIONS

1. To Remove Cassette Plate

1) Remove the 2 screws. (See figure 1)

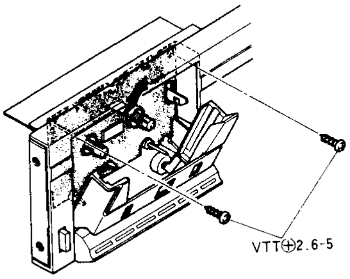


Fig. 1

2. To Remove Front Panel

1) Remove the 3 knobs.
2) Remove the 3 screws. (See figure 2)

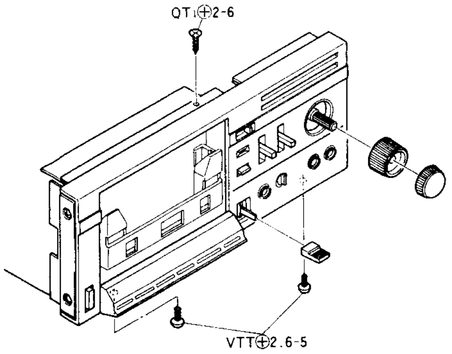


Fig. 2

3. To Remove Main Motor and Sub Motor

1) Put the main belt onto the belt rest.
Twist clockwise and remove the main motor.
(See figure 3)

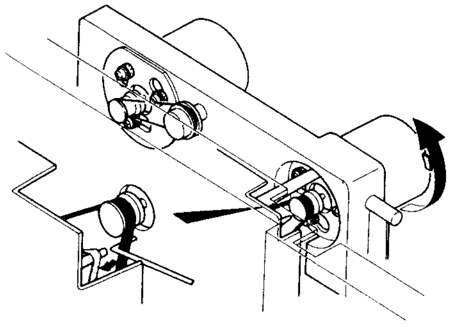


Fig. 3

2) Take the rubber belt (FR, B) out of the sub-motor.
3) Remove two screws on the plunger board.
Twist clockwise and remove the sub-motor.
(See figure 4)

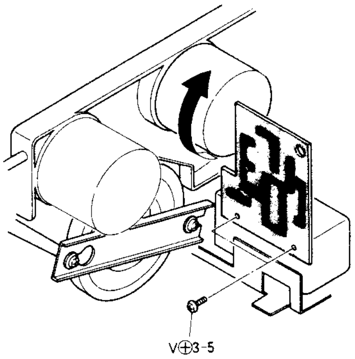


Fig. 4

4. To Remove Sub Chassis

1) Take off the rod for the power switch.
Remove two screws for the logic board supporters.
(See figure 5)

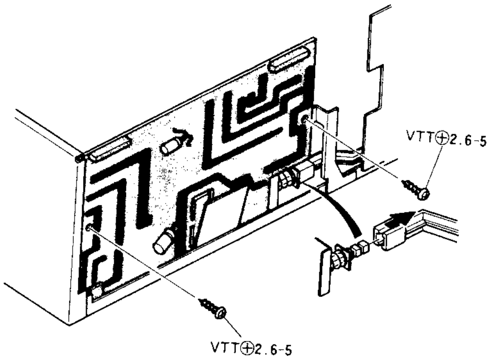


Fig. 5

2) Remove the 5 screws. (See figure 6)

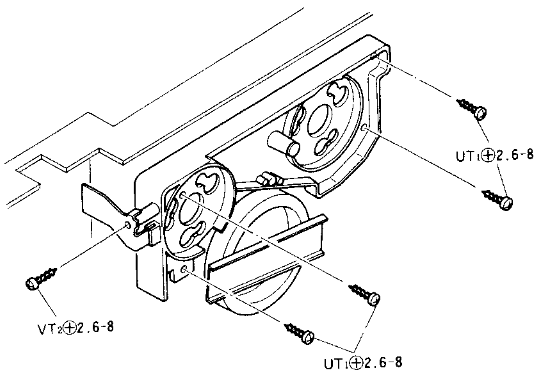


Fig. 6

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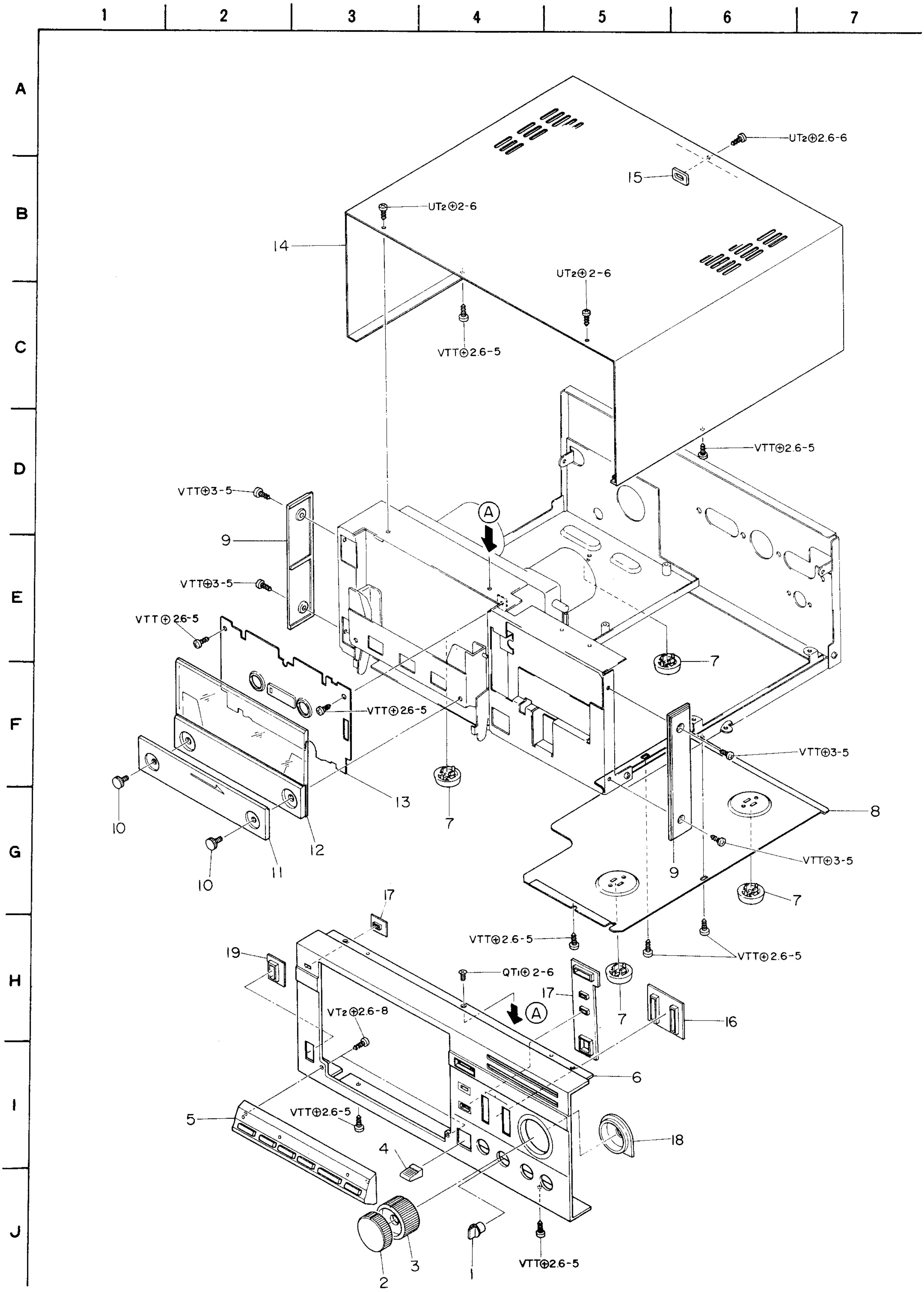
EXPLODED VIEW–1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UT2⊕2-6
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UT2⊕2-6
VTT⊕2.6-5
VTT⊕2.6-5
VTT⊕3-5
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Ⓐ
VTT⊕3-5
VTT⊕2.6-5
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VTT⊕2.6-5
VTT⊕3-5
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VTT⊕3-5
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VTT⊕2.6-5
VTT⊕2.6-5
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QT1⊕2-6
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Ⓐ
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VT2⊕2.6-8
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VTT⊕2.6-5
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VTT⊕2.6-5

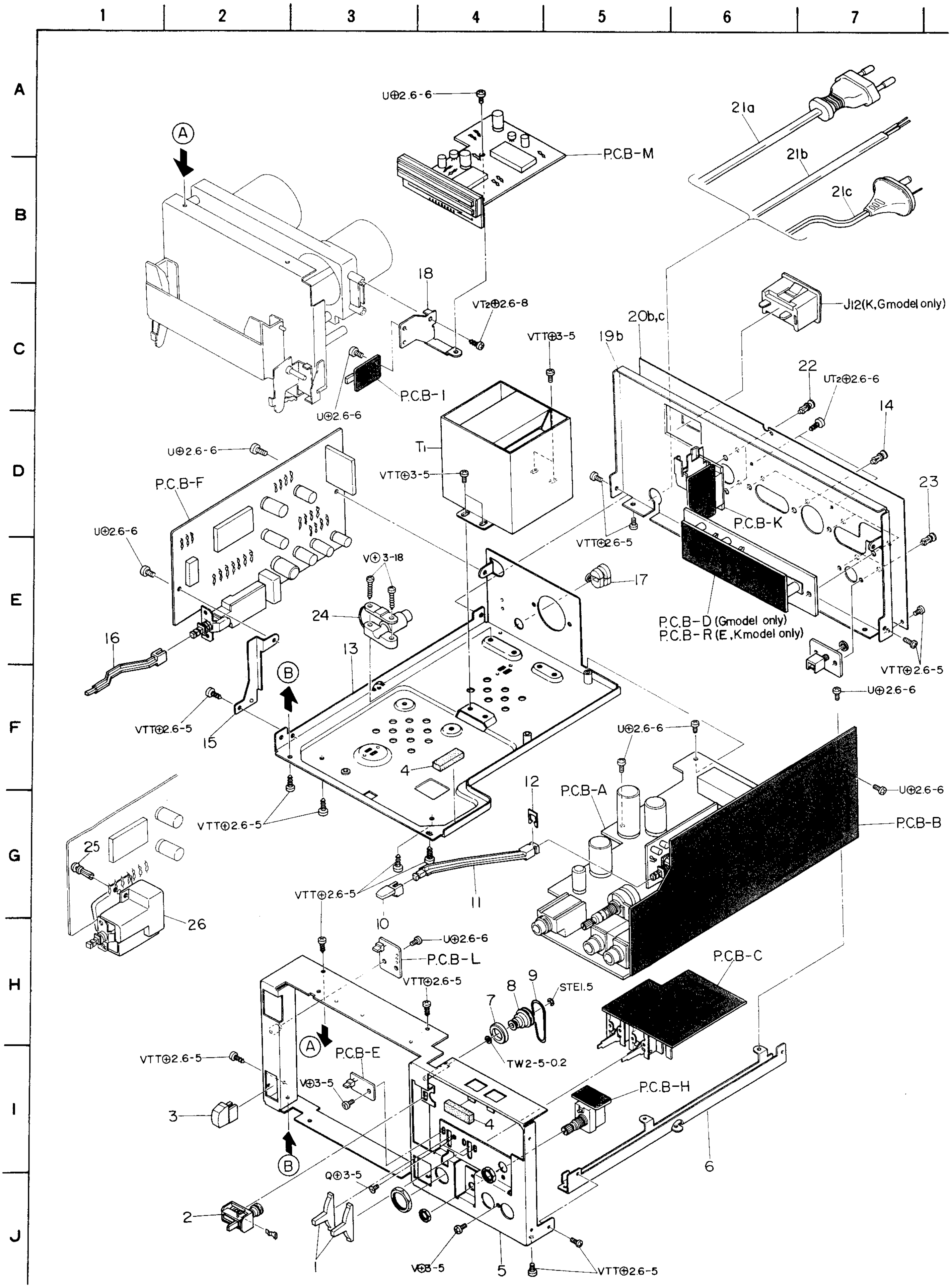
PARTS LIST

MECHANICAL PARTS

- * mark in this part list shows exclusive part (which is used) for only Model No. SD-L50.

Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
1-1	82-157-016-01		Knob, Timer	*	1
1-2	82-157-006-01		Knob A, Volume	*	1
1-3	82-157-007-01		Knob B, Volume	*	1
1-4	82-157-015-01		Knob, Eject key	*	1
1-5	82-157-645-01		Push-key ass'y	*	1
1-6	82-157-018-01		Panel, Front	*	1
1-7	82-745-019-01		Foot		4
1-8	82-157-210-01		Cabinet, Bottom	*	1
1-9	82-157-005-01		Panel, Side	*	2
1-10	82-157-014-01		Decorative screw	*	2
1-11	82-157-003-01		Panel, Cassette	*	1
1-12	82-157-004-01		Window, Cassette	*	1
1-13	82-157-008-01		Cassette plate	*	1
1-14	82-157-012-01		Cabinet, Steel	*	1
1-15	82-380-439-01		Spacer, Back panel	AD-6500	1
1-16	82-157-002-01		Guide, Bias lever	*	1
1-17	82-157-010-01		Guide, Button	*	1
1-18	82-157-011-01		Guide, Volume	*	1
1-19	82-745-012-01		Guide, Push-button C		1

EXPLODED VIEW–2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U⊕2.6-6
P.C.B-M
21a
21b
21c
Ⓐ
18
VT2⊕2.6-8
VTT⊕3-5
19b
20b,c
J12(K,Gmodel only)
P.C.B-I
U⊕2.6-6
22
UT2⊕2.6-6
14
T1
U⊕2.6-6
P.C.B-F
VTT⊕3-5
VTT⊕2.6-5
P.C.B-K
23
U⊕2.6-6
V⊕3-18
17
24
P.C.B-D (Gmodel only)
P.C.B-R (E,Kmodel only)
VTT⊕2.6-5
16
13
Ⓑ
VTT⊕2.6-5
U⊕2.6-6
15
U⊕2.6-6
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P.C.B-A
U⊕2.6-6
VTT⊕2.6-5
P.C.B-B
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VTT⊕2.6-5
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U⊕2.6-6
P.C.B-L
VTT⊕2.6-5
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STE1.5
P.C.B-C
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Ⓐ
P.C.B-E
TW2-5-0.2
VTT⊕2.6-5
V⊕3-5
P.C.B-H
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Q⊕3-5
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V⊕3-5
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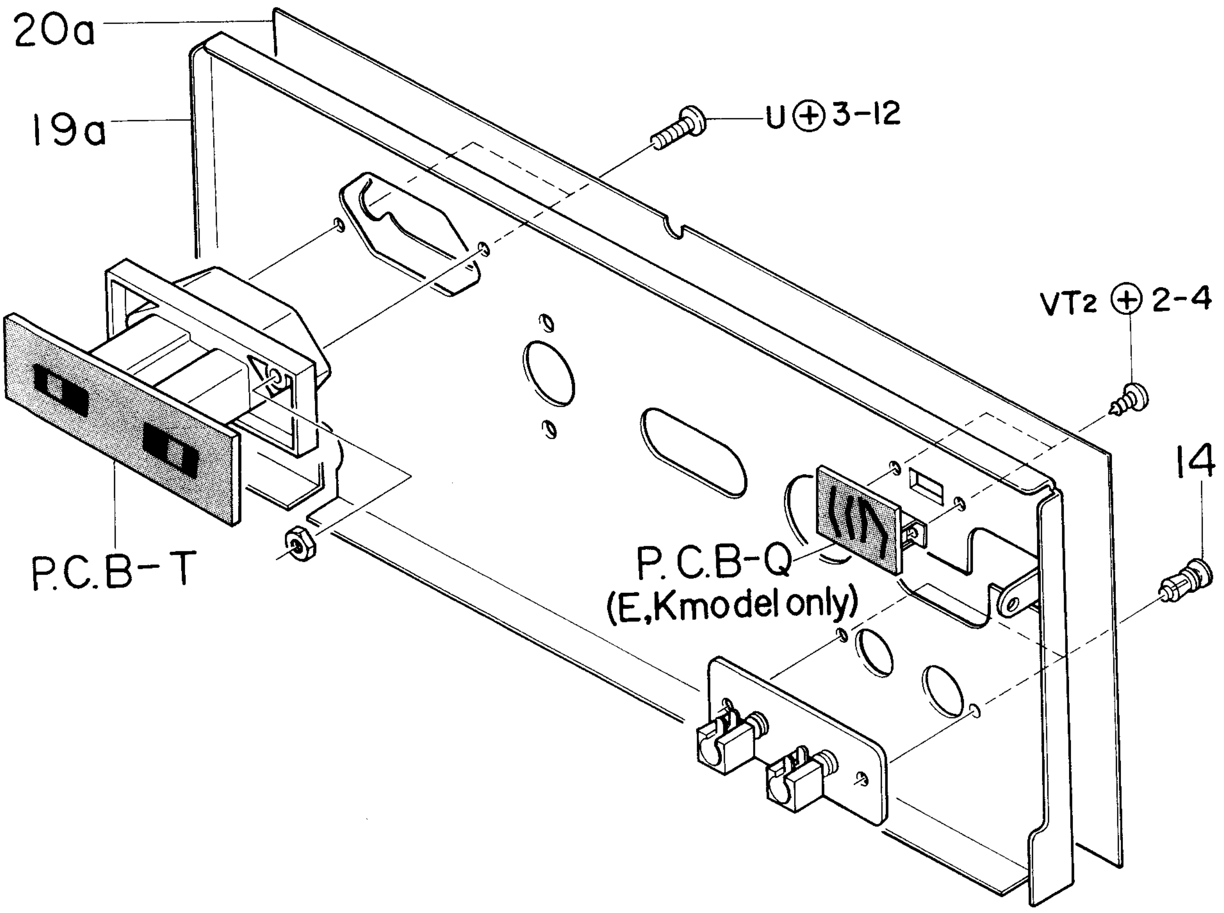
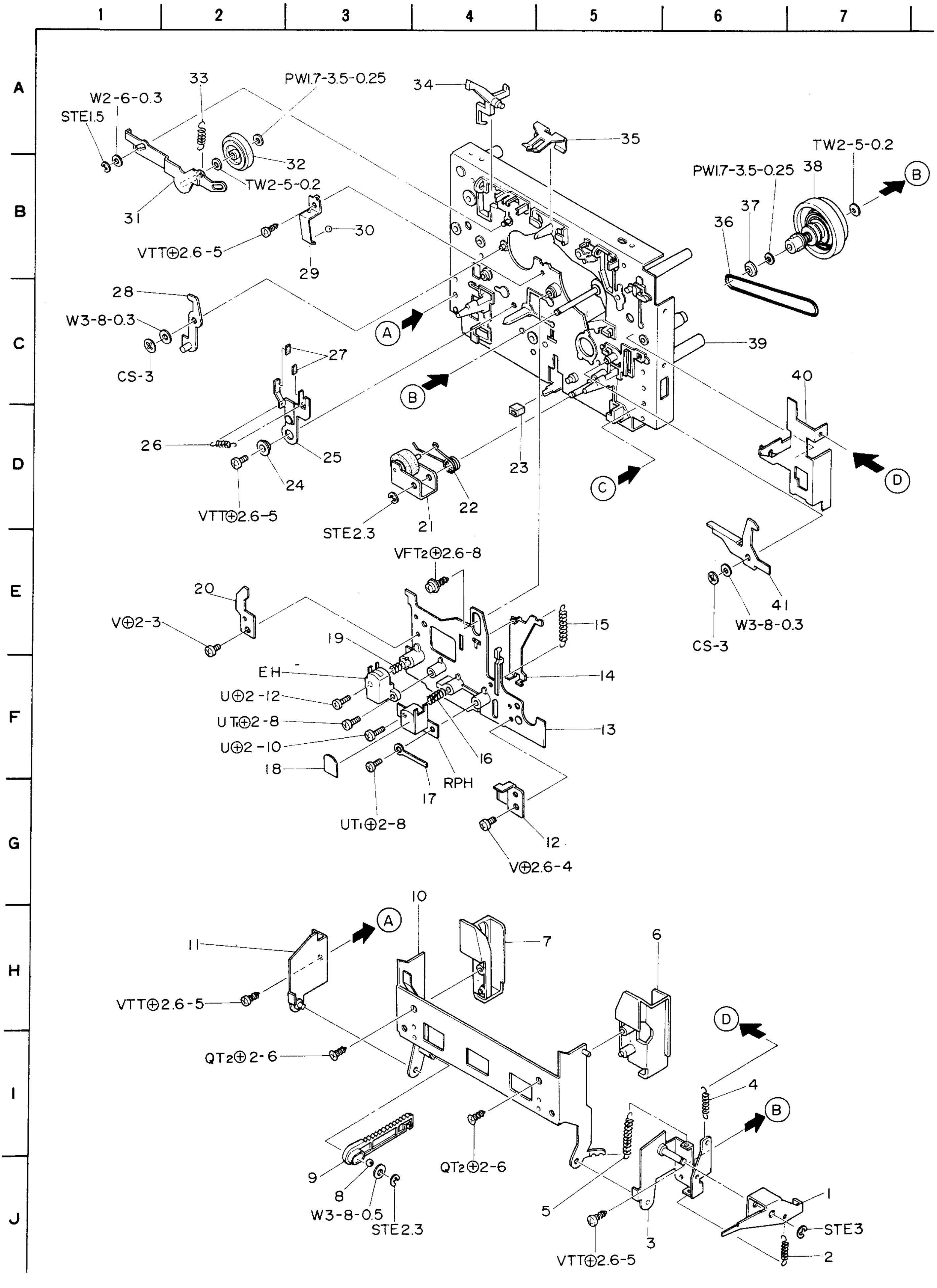
VTT⊕2.6-5

Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
2-1	82-157-001-01		Bias lever	*	2
2-2	87-040-130-01		Counter		1
2-3	82-745-010-01		Push-button C		1
2-4	82-748-208-01		Cushion	SA-C50	2
2-5	82-157-205-01		Front chassis ass'y	*	1
2-6	82-157-203-01		Side chassis	*	1
2-7	82-157-231-01		Magnet, Ring	*	1
2-8	82-157-215-01		Relay pulley	*	1
2-9	82-157-211-01		Rubber belt B	*	1
2-10	82-745-008-01		Push-button A		1
2-11	82-157-209-01		Rod, Dolby	*	1
2-12	82-385-383-01		Stopper, Rod	AD-6300	1
2-13	82-157-213-01		Amp. Chassis ass'y	*	1
2-14	87-084-077-01		Nylon rivet 3.5—4.5 (E,K model only)		E,K:6 G :4
2-15	82-157-207-01		Holder, Circuit board	*	1
2-16	82-157-208-01		Rod, Power	*	1
2-17	87-085-165-01		Cord bushing (G model only)		1
2-18	82-157-216-01		Holder A, Circuit board	*	1
2-19a	82-157-225-01		Rear chassis (E model only)	*	1
2-19b	82-157-232-01		Rear chassis (K,G model only)	*	1
2-20a	82-157-021-01		Sheet, Jack (E model only)	*	1
2-20b	82-157-022-01		Sheet, Jack (K model only)	*	1
2-20c	82-157-024-01		Sheet, Jack (G model only)	*	1
2-21a	87-034-877-01		AC power cord (E model only)		1
2-21b	87-034-872-01		AC power cord (K model only)		1
2-21c	87-034-878-01		AC power cord (G model only)		1
2-22	87-084-063-01		Nylon rivet 3-5.5ϕ		2
2-23	87-085-102-01		Nylon rivet 3.5-5.5ϕ (G model only)		2
2-24	87-085-166-01		Holder, AC power cord (E,K model only)		1
2-25	87-085-090-01		Nylon rivet		1
2-26	82-157-229-01		Cover, AC switch	*	1



EXPLODED VIEW–3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W2-6-0.3
STE1.5
PW1.7-3.5-0.25
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TW2-5-0.2
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VTT⊕2.6-5
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TW2-5-0.2
PW1.7-3.5-0.25
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W3-8-0.3
CS-3
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VTT⊕2.6-5
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STE2.3
VFT2⊕2.6-8
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V⊕2-3
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EH
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U⊕2-12
UT1⊕2-8
U⊕2-10
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UT1⊕2-8
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V⊕2.6-4
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VTT⊕2.6-5
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QT2⊕2-6
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QT2⊕2-6
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W3-8-0.5
STE2.3
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STE3
VTT⊕2.6-5
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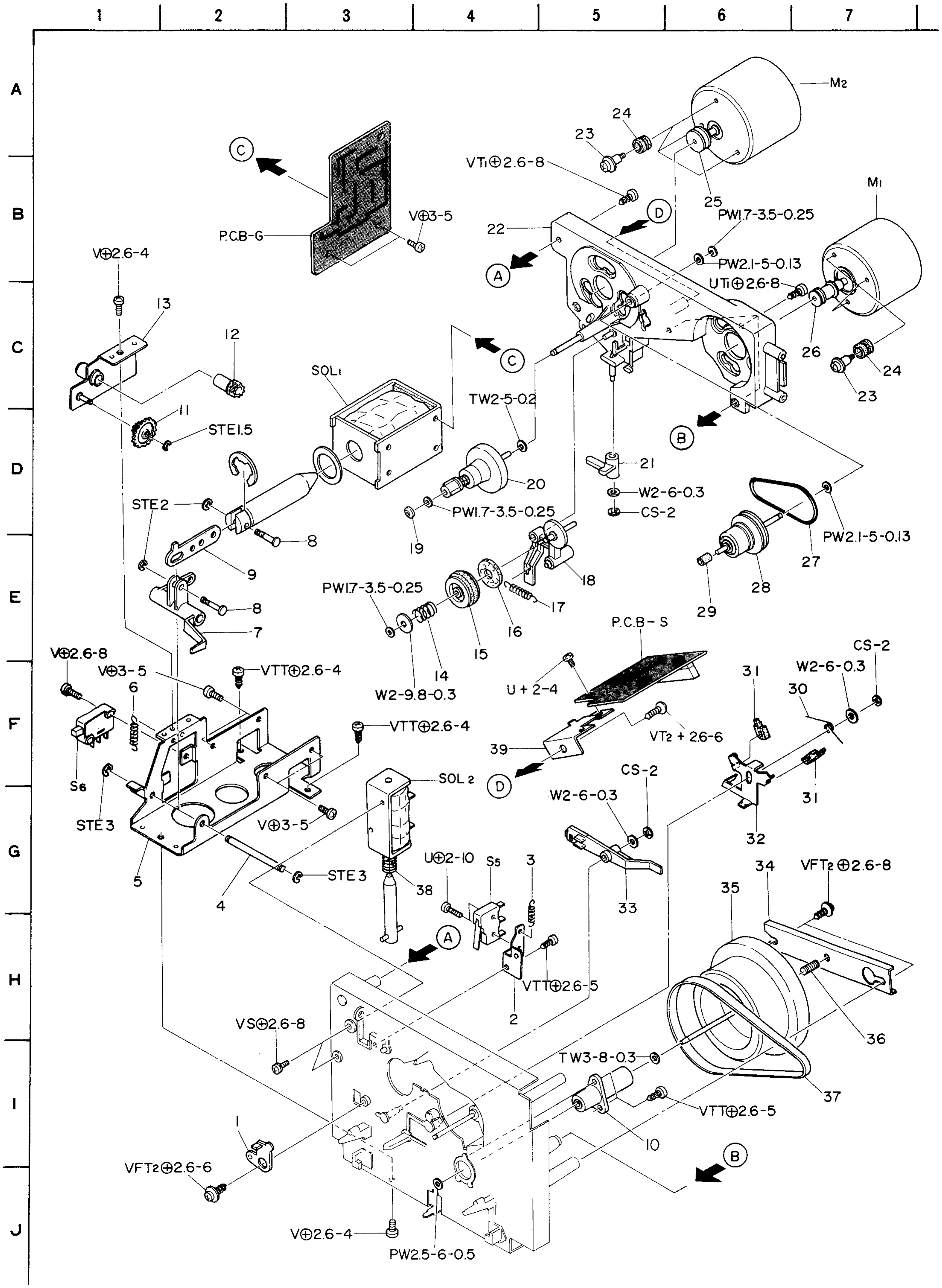
Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
3-1	82-156-207-01		Lever, Eject		1
3-2	82-304-264-01		E-spring, Eject lever	AD-6900	1
3-3	82-319-220-01		Holder C, Box R ass'y	AD-M600	1
3-4	82-392-374-01		E-spring, Pause A	AD-6550	1
3-5	83-319-230-01		E-spring, Cassette lid	AD-M600	1
3-6	82-155-012-01		Holder R, Cassette		1
3-7	82-155-011-01		Holder L, Cassette		1
3-8	87-073-005-01		Steel ball 2ϕ		1
3-9	82-541-240-01		Oil damp lever	TPR-950	1
3-10	82-156-213-01		Cassette box ass'y		1
3-11	82-319-223-01		Holder C, Box L ass'y	AD-M600	1
3-12	82-303-294-01		Holder, T-spring	AD-6900	1
3-13	82-319-204-01		Outsert actuating chassis ass'y	AD-M600	1
3-14	82-319-210-01		Slide plate (Actuating)	AD-M600	1
3-15	82-319-229-01		E-spring (Actuating)	AD-M600	1
3-16	82-392-347-01		C-spring, Head	AD-6550	1
3-17	82-365-280-01		Holder, Wire		1
3-18	87-057-597-01		Label, Head		1
3-19	82-392-357-01		C-spring, EH platform	AD-6550	1
3-20	82-319-209-01		Guide, Idler lever	AD-M600	1
3-21	82-319-270-01		Pinch roller ass'y	AD-M600	1
3-22	82-307-222-01		T-spring, Pinch lever	AD-6700	1
3-23	82-397-307-01		G-cushion, Eject lever	AD-6550	1
3-24	82-319-243-01		Frange collar, Back tension	AD-M600	1
3-25	82-319-259-01		Lever, Back tension ass'y	AD-M600	1
3-26	82-319-258-01		E-spring, Back tension	AD-M600	1
3-27	82-303-382-01		Felt, Sub brake	AD-6900	2
3-28	82-319-235-01		Lever, P.A.C ass'y	AD-M600	1
3-29	82-319-215-01		P-spring, Actuating A	AD-M600	1
3-30	82-215-341-01		3/32 steel ball		1
3-31	82-303-342-01		Lever, Play idler ass'y	AD-6900	1
3-32	82-303-274-01		Idler play ass'y	AD-6900	1
3-33	82-303-325-01		E-spring, Play idler	AD-6900	1
3-34	82-303-346-01		Lever, REC blocking	AD-6900	1
3-35	82-319-214-01		P-spring, Cassette	AD-M600	1
3-36	82-463-219-01		Belt, Counter		1
3-37	82-303-398-01		Cap, Take up reel platform	AD-6900	1
3-38	82-303-249-01		Take up reel ass'y	AD-6900	1
3-39	82-319-202-01		Outsert chassis sub ass'y	AD-M600	1
3-40	82-155-210-01		Lock lever		1
3-41	82-156-214-01		Lever, Play switch		1

EXPLODED VIEW–4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PW2.1-5-0.13
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UT1⊕2.6-8
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STE1.5
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W2-6-0.3
STE2
CS-2
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PW1.7-3.5-0.25
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PW2.1-5-0.13
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PW1.7-3.5-0.25
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W2-6-0.3
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VT2＋2.6-6
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VS⊕2.6-8
TW3-8-0.3
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V⊕2.6-4
PW2.5-6-0.5

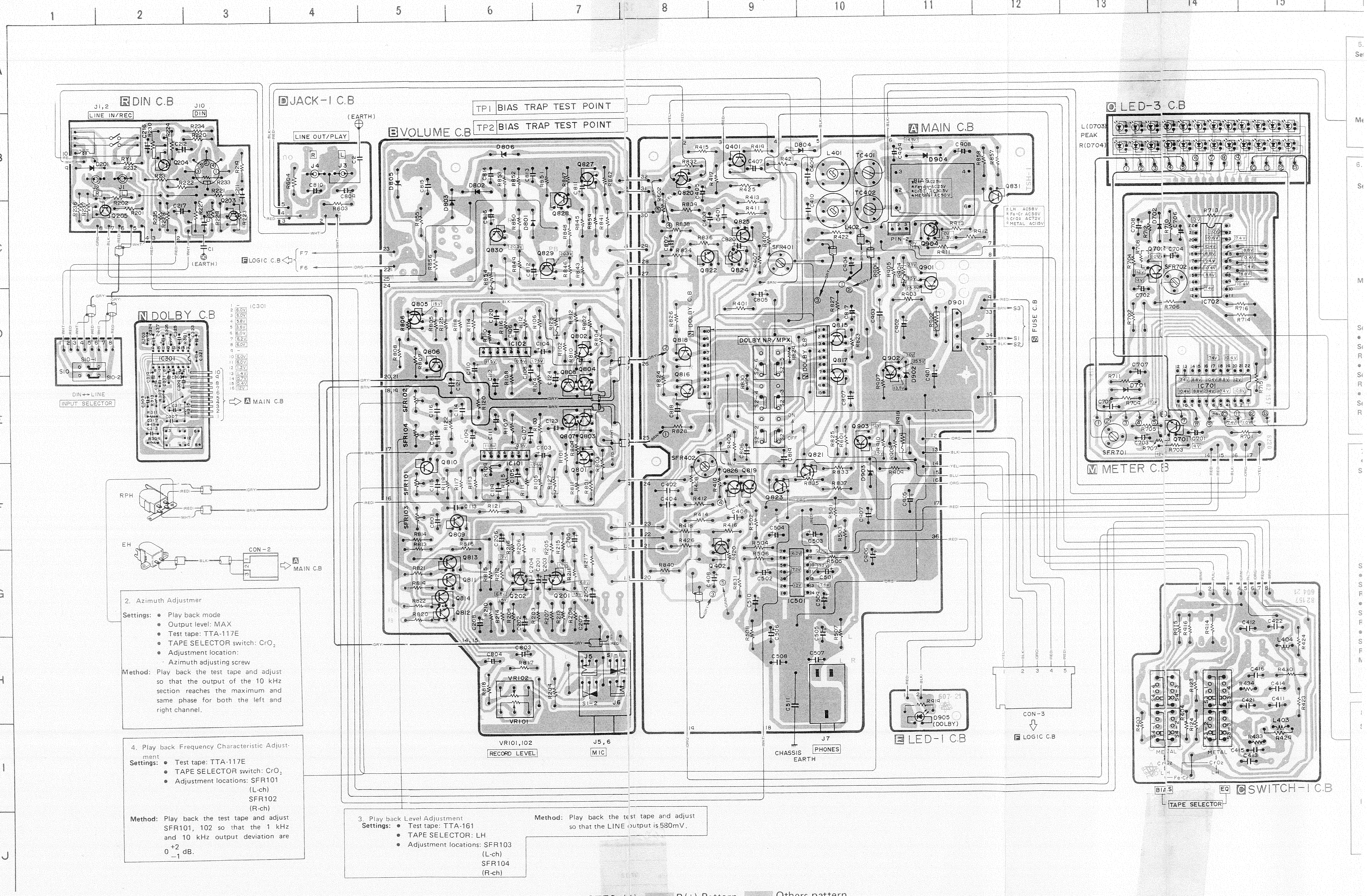
Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty	
4-1	82-303-288-01		Lever, Actuating lock	AD-6900	1	
4-2	82-303-350-01		Holder, REC blocking	AD-6900	1	
4-3	82-319-234-01		E-spring, REC blocking	AD-M600	1	
4-4	82-304-244-01		Shaft, Play lever	AD-6900	1	
4-5	82-156-215-01		Holder, Solenoid		1	
4-6	82-304-249-01		E-spring, Actuating	AD-6900	1	
4-7	82-304-232-01		Lever, PLAY	AD-6900	1	
4-8	82-319-269-01		Shaft, Plunger	AD-M600	2	
4-9	82-319-250-01		Slide plate, PLAY B	AD-M600	1	
4-10	82-392-256-01		Shaft bearing ass'y	AD-6550	1	
4-11	82-319-239-01		Gear, Oil	AD-M600	1	
4-12	82-534-264-01		Gear, Oil damp		1	
4-13	82-319-225-01		Holder, Oil damp ass'y	AD-M600	1	
4-14	82-303-322-01		C-spring, FR idler	AD-6900	1	
4-15	82-303-271-01		Idler pulley FR ass'y	AD-6900	1	
4-16	82-303-335-01		Felt, 6.4–14	AD-6900	1	
4-17	82-303-353-01		E-spring, FR lever	AD-6900	1	
4-18	82-303-277-01		FR lever ass'y	AD-6900	1	
4-19	82-303-398-01		Cap, Take up reel platform	AD-6900	1	
4-20	82-154-222-01		Supply reel platform sub ass'y		1	
4-21	82-303-292-01		Lever, FR eject	AD-6900	1	
4-22	82-319-232-01		Mechanism sub chassis ass'y	AD-M600	1	
4-23	87-081-483-01		Motor screw, M2.6		6	
4-24	82-439-319-01		Rubber cushion B		6	
4-25	82-319-247-01		Motor pulley FR	AD-M600	1	
4-26	82-156-209-01		Motor pulley		1	
4-27	82-303-385-01		Rubber belt FR B	AD-6900	1	
4-28	82-303-330-01		Slip pulley ass'y	AD-6900	1	
4-29	82-303-309-01		Rubber, Drive	AD-6900	1	
4-30	82-303-318-01		T-spring, Brake	AD-6900	1	
4-31	82-439-426-01		Brake shoe A	TPR-300	2	
4-32	82-303-297-01		Slide plate, Brake	AD-6900	1	
4-33	82-303-286-01		Lever, Brake	AD-6900	1	
4-34	82-319-238-01		Plate, Flywheel	AD-M600	1	
4-35	82-156-201-01		Flywheel ass'y		1	
4-36	82-331-107-01		Thrust for screw		1	
4-37	82-319-227-01		Rubber belt, Flywheel	AD-M600	1	
4-38	82-488-311-01		C-spring, Plunger		1	
4-39	82-304-259-01		Holder, Motor circuit board	AD-6900	1	

ACCESSORIES/PACKAGE

Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty	
1	82-157-856-01		Printed indiv., Packing	*	1	
2	82-157-852-01		Cushion L, Printed indiv.	*	1	
3	82-157-853-01		Cushion R, Printed indiv.	*	1	
4	87-056-605-01		Poly-vinyl sack		1	
5	87-056-614-01		Poly-vinyl sack		1	
6a	82-157-905-01		Instructions booklet (E model only)	*	1	
6b	82-157-907-01		Instructions booklet (K model only)	*	1	
6c	82-157-909-01		Instructions booklet (G model only)	*	1	
7	87-051-171-01		Poly-vinyl sack (for instruction)		1	
8	87-056-008-11		Label, AC power cord (K model only)		1	
9	87-056-009-41		Distributors list		1	
10	87-056-032-01		Guarantee card (G model only)		1	
11	87-056-042-01		Label, POP		1	
12	86-944-012-01		Connection cord CW-129BSK		2	
13	87-058-024-01		Head cleaning pole ass'y		1	

AIWA

WIRING–1


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
R DIN C.B
J1,2
LINE IN/REC
J10
DIN
D JACK-1 C.B
(EARTH)
LINE OUT/PLAY
J4
J3
TP1 BIAS TRAP TEST POINT
TP2 BIAS TRAP TEST POINT
B VOLUME C.B
A MAIN C.B
C LED-3 C.B
L(D703)
PEAK
R(D704)
F LOGIC C.B
F7
F6
N DOLBY C.B
IC301
S10
DIN ↔ LINE
INPUT SELECTOR
A MAIN C.B
DOLBY NR/MPX
S FUSE C.B
M METER C.B
RPH
EH
CON-2
A MAIN C.B
VR101,102
RECORD LEVEL
J5,6
MIC
CHASSIS EARTH
J7
PHONES
E LED-1 C.B
D905 (DOLBY)
CON-3
F LOGIC C.B
C SWITCH-1 C.B
BIAS
EQ
TAPE SELECTOR
METAL
CrO2
LH
Fe-Cr

2. Azimuth Adjustmer

Settings:
- Play back mode
- Output level: MAX
- Test tape: TTA-117E
- TAPE SELECTOR switch: CrO_2
- Adjustment location:
  · Azimuth adjusting screw

Method: Play back the test tape and adjust so that the output of the 10 kHz section reaches the maximum and same phase for both the left and right channel.

4. Play back Frequency Characteristic Adjustment

Settings:
- Test tape: TTA-117E
- TAPE SELECTOR switch: CrO_2
- Adjustment locations: SFR101 (L-ch) SFR102 (R-ch)

Method: Play back the test tape and adjust SFR101, 102 so that the 1 kHz and 10 kHz output deviation are 0^{+2}_{-1} dB.

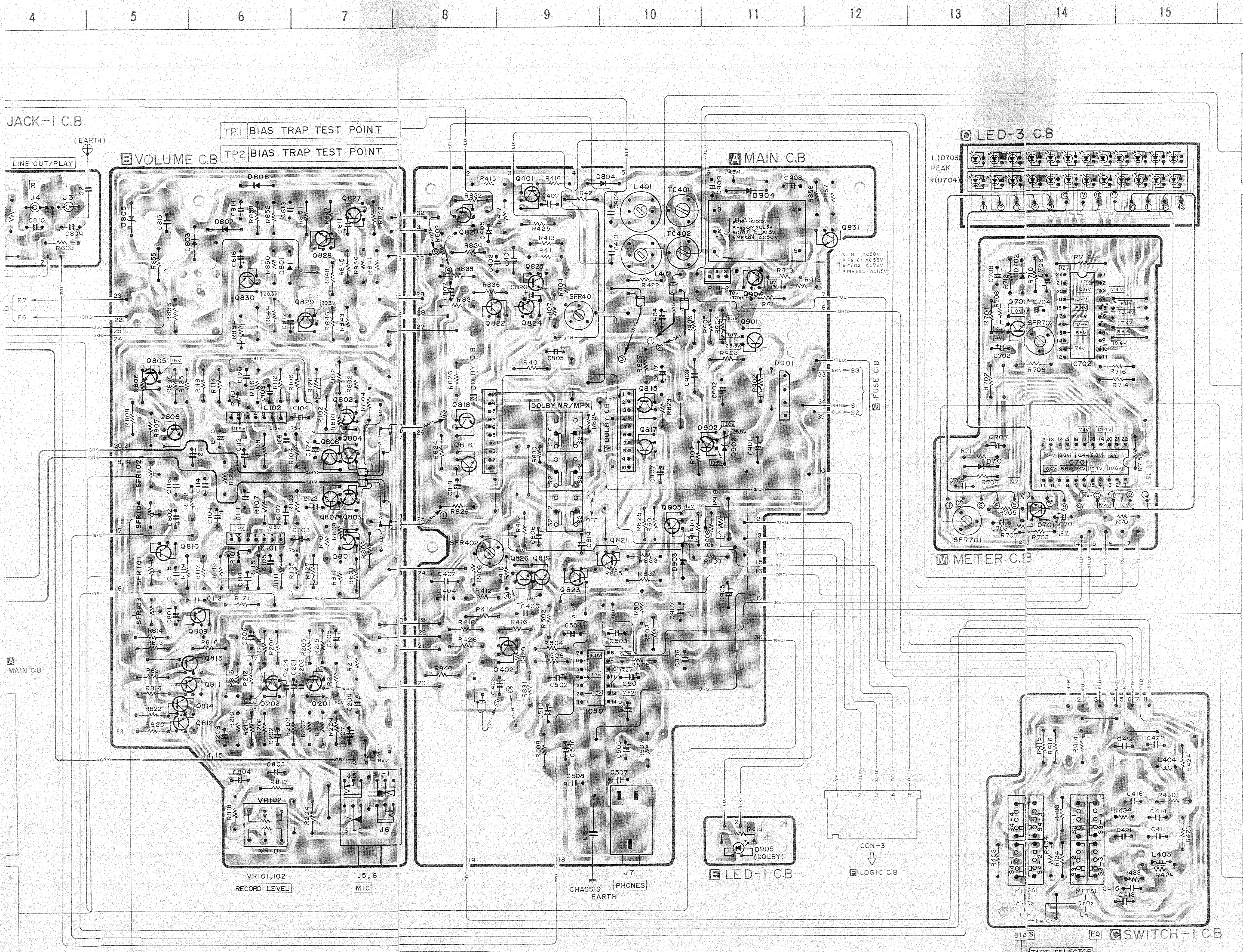
3. Play back Level Adjustment

Settings:
- Test tape: TTA-161
- TAPE SELECTOR: LH
- Adjustment locations: SFR103 (L-ch) SFR104 (R-ch)

Method: Play back the test tape and adjust so that the LINE output is 580mV.

NOTES (1) ▨ B(+) Pattern ▨ Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals. An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.


4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
JACK-1 C.B
(EARTH)
LINE OUT/PLAY
B VOLUME C.B
TP1 BIAS TRAP TEST POINT
TP2 BIAS TRAP TEST POINT
A MAIN C.B
Q LED-3 C.B
L(D703)
PEAK
R(D704)
N DOLBY C.B
DOLBY NR/MPX
S FUSE C.B
M METER C.B
A MAIN C.B
VR101,102
RECORD LEVEL
J5,6
MIC
CHASSIS EARTH
J7
PHONES
D905 (DOLBY)
E LED-1 C.B
CON-3
F LOGIC C.B
METAL
CrO2
LH
Fe-Cr
BIAS
EQ
C SWITCH-1 C.B
TAPE SELECTOR

5. Bias Trap Coil Adjustment

Settings:
- Recording mode
- Test points: TP1 (L-ch) TP2 (R-ch)
- Adjustment locations: L401 (L-ch) L402 (R-ch)

Method: Adjust L401, 402 so that the voltage at test point TP1, 2 is reduced to minimum value.

6. LH REC/PB Frequency Characteristic Adjustment

Settings:
- Recording mode
- Test tape: CS-10
- Output level: MAX
- TAPE SELECTOR switch: LH
- Input signal: −30 dB, 400 Hz 400 Hz
- Adjustment locations: TC401 (L-ch) TC402 (R-ch)

Method: Record and play back the 1 kHz and 10 kHz signals. Adjust TC401, 402 so that the 1 kHz and 10 kHz output deviation are 0 ± 0.5 dB.

Settings differ as below METAL, CrO_2 and LH

- **METAL tape**

Settings: • Test tape: TTA-119M

Rating: 0 ± 1.0 dB

- **CrO_2 tape**

Settings: • Test tape: TTA-119G

Rating: 0 ± 1.0 dB

- **Fe-Cr tape**

Settings: • Test tape: TTA-119E

Rating: 0 ± 1.0 dB

7. REC/PB Sensitivity Adjustment

- CrO_2 tape

Settings
- Recording mode
- Test tape: TTA-119G
- Input signal: −30 dB, 400 Hz
- Output level: MAX
- TAPE SELECTOR switch: LH
- Adjustment locations: SFR401 (L-ch) SFR402 (R-ch)

Settings differ as below METAL, Fe-Cr and LH

- **METAL tape**

Settings: • Test tape: TTA-119M

Rating: 410mV ± 1.5 dB

- **Fe-Cr tape**

Settings: • Test tape: TTA-119E

Rating: 410 mV ± 1.5 dB

- **LH tape**

Settings: • Test tape: CS-10

Rating: 410 mV ± 1.5 dB

Method: Record and play back the test tape and adjust SFR401, 402 so that LINE OUTPUT is 410mV.

8. Level Indicator Adjustment

Settings:
- Recording mode
- Test tape: TTA-119D
- Input signal: 400 Hz, −10 dB
- DOLBY NR switch: OFF
- Adjustment location: SFR701 (L-ch) SFR702 (R-ch)

Method: Adjust RECORD VOLUME so that the LINE OUPUT is 410mV. Adjust SFR701, 702 so that 0 dB LED light up. Confirmed put out 0 dB LED when input signal decrease 1 dB.

3. Play back Level Adjustment

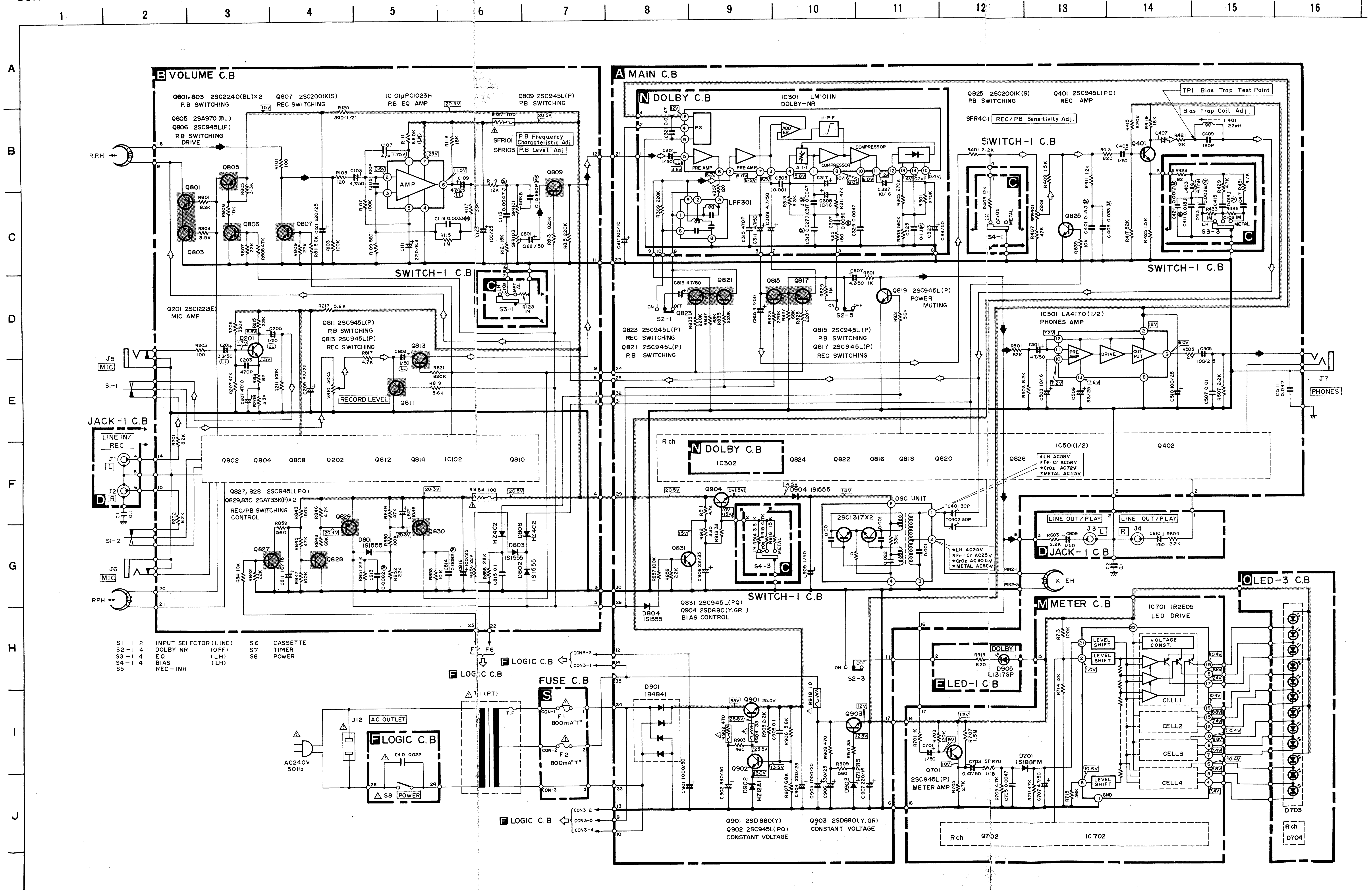
Settings:
- Test tape: TTA-161
- TAPE SELECTOR: LH
- Adjustment locations: SFR103 (L-ch) SFR104 (R-ch)

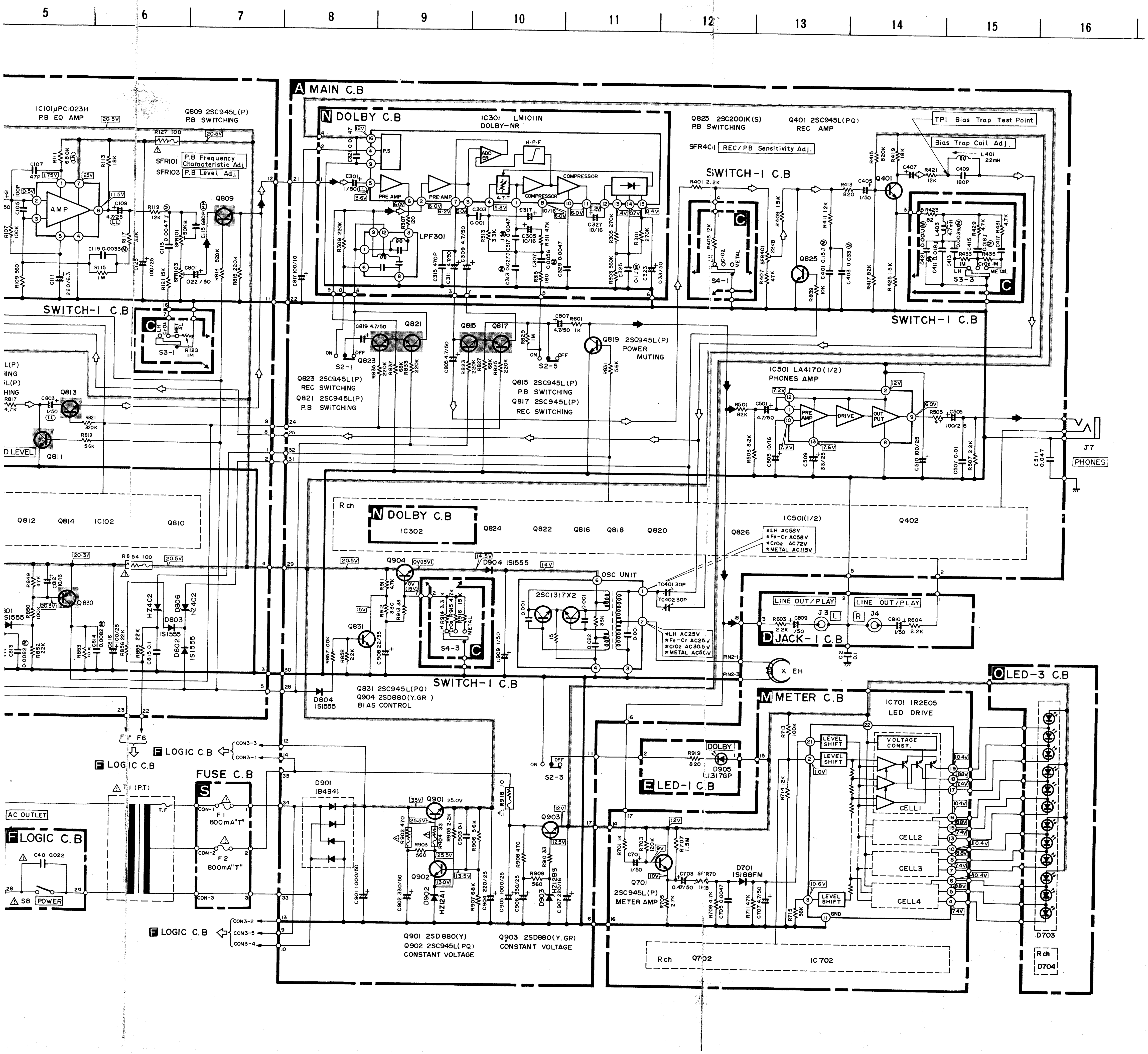
Method: Play back the test tape and adjust so that the LINE output is 580mV.

NOTES (1) ▨ B(+) Pattern ▨ Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals. An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.

SCHEMATIC DIAGRAM-2

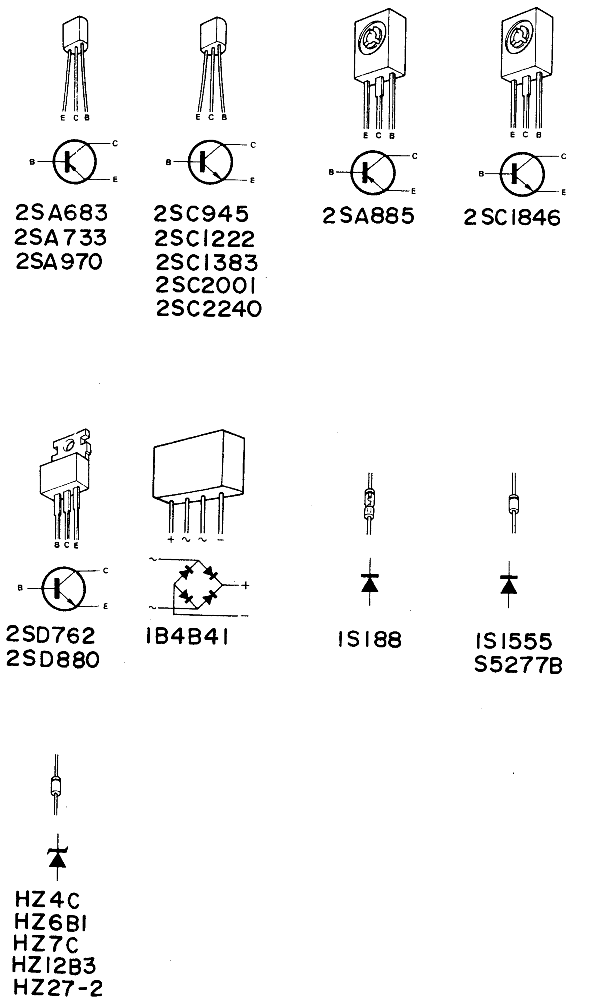

B VOLUME C.B
Q801, 803 2SC2240(BL)×2
P.B SWITCHING
Q805 2SA970(BL)
Q806 2SC945L(P)
P.B SWITCHING DRIVE
Q807 2SC2001K(S)
REC SWITCHING
IC101 μPC1023H
P.B EQ AMP
Q809 2SC945L(P)
P.B SWITCHING
SFR101 P.B Frequency Characteristic Adj.
SFR103 P.B Level Adj.
AMP
SWITCH-1 C.B
S3-1
Q201 2SC1222(E)
MIC AMP
Q811 2SC945L(P)
P.B SWITCHING
Q813 2SC945L(P)
REC SWITCHING
RECORD LEVEL
JACK-1 C.B
LINE IN/REC
J5 MIC
J6 MIC
R.P.H
RPH
Q827, 828 2SC945L(PQ)
Q829, 830 2SA733K(P)×2
REC/PB SWITCHING CONTROL
Q802 Q804 Q808 Q202 Q812 Q814 IC102 Q810
A MAIN C.B
N DOLBY C.B
IC301 LM1011N
DOLBY-NR
PRE AMP
PRE AMP
H.P.F
COMPRESSOR
COMPRESSOR
LPF301
Q825 2SC2001K(S)
P.B SWITCHING
Q401 2SC945L(PQ)
REC AMP
SFR401 REC/PB Sensitivity Adj.
TP1 Bias Trap Test Point
Bias Trap Coil Adj.
L401 22mH
SWITCH-1 C.B
S4-1
S3-3
Q823 2SC945L(P)
REC SWITCHING
Q821 2SC945L(P)
P.B SWITCHING
Q815 2SC945L(P)
P.B SWITCHING
Q817 2SC945L(P)
REC SWITCHING
Q819 2SC945L(P)
POWER MUTING
IC501 LA4170(1/2)
PHONES AMP
PRE AMP
DRIVE
OUT PUT
J7 PHONES
R ch
N DOLBY C.B
IC302
Q824 Q822 Q816 Q818 Q820 Q826 IC501(1/2) Q402
*LH AC58V
*Fe-Cr AC58V
*CrO2 AC72V
*METAL AC115V
Q904
D904 1S1555
OSC UNIT
2SC1317×2
S4-3
SWITCH-1 C.B
*LH AC25V
*Fe-Cr AC25V
*CrO2 AC30.5V
*METAL AC50V
Q831 2SC945L(PQ)
Q904 2SD880(Y.GR)
BIAS CONTROL
D804 1S1555
LINE OUT/PLAY
J3 L
R J4
D JACK-1 C.B
EH
O LED-3 C.B
M METER C.B
IC701 IR2E05
LED DRIVE
LEVEL SHIFT
VOLTAGE CONST.
CELL1
CELL2
CELL3
CELL4
D703
R ch D704
Q702
IC702
S1-1 2 INPUT SELECTOR (LINE)
S2-1 4 DOLBY NR (OFF)
S3-1 4 EQ (LH)
S4-1 4 BIAS (LH)
S5 REC-INH
S6 CASSETTE
S7 TIMER
S8 POWER
F LOGIC C.B
F LOGIC C.B
FUSE C.B
S
T1 (P.T)
F1 800mA"T"
F2 800mA"T"
J12 AC OUTLET
F LOGIC C.B
S8 POWER
AC240V 50Hz
D901 1B4B41
F LOGIC C.B
Q901 2SD880(Y)
Q902 2SC945L(PQ)
CONSTANT VOLTAGE
Q903 2SD880(Y.GR)
CONSTANT VOLTAGE
S2-3
DOLBY D905 LI317GP
E LED-1 C.B
Q701 2SC945L(P)
METER AMP
D701 1S188FM


A MAIN C.B
N DOLBY C.B
IC301 LM1011N DOLBY-NR
IC101 μPC1023H P.B EQ AMP
Q809 2SC945L(P) P.B SWITCHING
P.B Frequency Characteristic Adj.
P.B Level Adj.
SWITCH-1 C.B
Q825 2SC2001K(S) P.B SWITCHING
Q401 2SC945L(PQ) REC AMP
SFR401 REC/PB Sensitivity Adj.
TP1 Bias Trap Test Point
Bias Trap Coil Adj.
Q823 2SC945L(P) REC SWITCHING
Q821 2SC945L(P) P.B SWITCHING
Q815 2SC945L(P) P.B SWITCHING
Q817 2SC945L(P) REC SWITCHING
Q819 2SC945L(P) POWER MUTING
IC501 LA4170(1/2) PHONES AMP
J7 PHONES
Rch
N DOLBY C.B
IC302
IC501(1/2)
Q904 2SD880(Y.GR)
Q831 2SC945L(PQ)
BIAS CONTROL
OSC UNIT
2SC1317X2
D JACK-1 C.B
LINE OUT/PLAY
M METER C.B
IC701 IR2E05 LED DRIVE
O LED-3 C.B
E LED-1 C.B
D905 LT317GP
F LOGIC C.B
FUSE C.B
S
AC OUTLET
S8 POWER
D901 1B4B41
Q901 2SD880(Y)
Q902 2SC945L(PQ)
CONSTANT VOLTAGE
Q903 2SD880(Y.GR) CONSTANT VOLTAGE
Q701 2SC945L(P) METER AMP
D701 1S188FM
Rch Q702 IC702
D703
D704

NOTES:

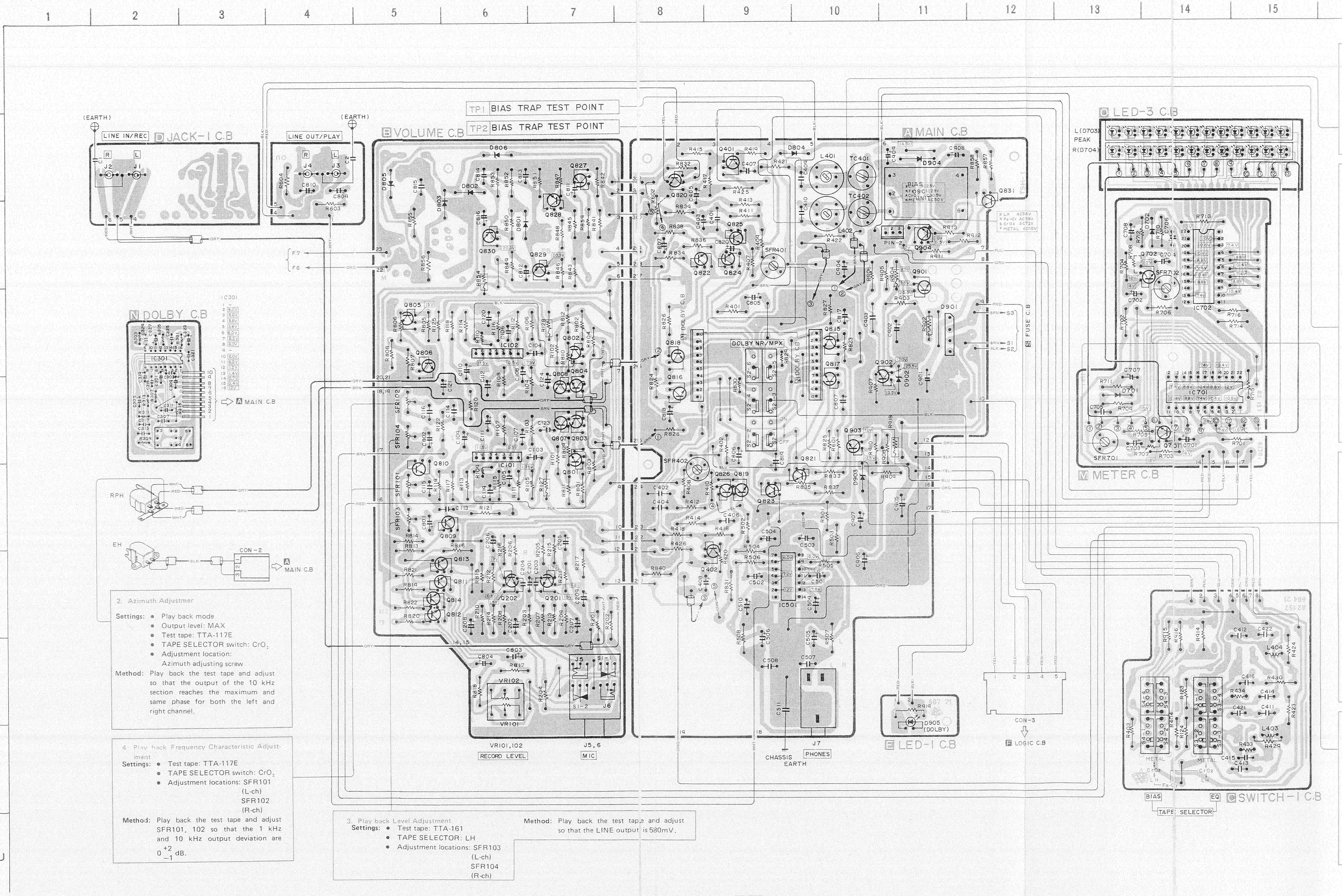
1) ▨ B (+) power supply
2) ➡ Signal path
   ⇨ Rec path
3) The voltage is the reference value measured with a tester (20 k-ohms/V DC) when there are no signals. But ( ) is with recording. An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.
4) Resistors with no designation have a rated power of ¼W and a tolerance of ±5%.
5) Capacitors with no designation have a dielectric strength of less than 50WV.
6) The only capacitor tolerances indicated are ±5% (J) and ±10% (K).
7) Ceramic capacitor symbols:
   For temperature compensation (SL)
   High dielectric constant system (YY)
   High dielectric constant system (YW, YP, YZ)
8) Explanation of symbols
   Ⓜ Mylar capacitor
   (PP) Polypropylene film capacitor
   (LL) Low-leakage capacitor
   Fuse resistor
   REC/PB Transistor switch
   TAPE SELECTOR Transistor switch
   ⚠ Safety component symbol
   This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications. Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

- This schematic diagram is subject to change without notice in the interests of improved performance.


E C B
2SA683
2SA733
2SA970
2SC945
2SC1222
2SC1383
2SC2001
2SC2240
2SA885
2SC1846
B C E
2SD762
2SD880
1B4B41
1S188
1S1555
S5277B
HZ4C
HZ6B1
HZ7C
HZ12B3
HZ27-2

AIWA

WIRING–2


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
A B C D E F G H I J
(EARTH)
LINE IN/REC
D JACK-1 C.B
LINE OUT/PLAY
B VOLUME C.B
TP1 BIAS TRAP TEST POINT
TP2 BIAS TRAP TEST POINT
A MAIN C.B
O LED-3 C.B
L(D703) PEAK R(D704)
N DOLBY C.B
IC301
A MAIN C.B
RPH
EH
CON-2
A MAIN C.B
DOLBY NR/MPX
S FUSE C.B
M METER C.B
VR101,102 RECORD LEVEL
J5,6 MIC
CHASSIS EARTH
J7 PHONES
E LED-1 C.B
D905 (DOLBY)
CON-3
F LOGIC C.B
C SWITCH-1 C.B
BIAS
EQ
TAPE SELECTOR
METAL CrO2 LH Fe-Cr

2. Azimuth Adjustmer

Settings:
- Play back mode
- Output level: MAX
- Test tape: TTA-117E
- TAPE SELECTOR switch: CrO_2
- Adjustment location:
  Azimuth adjusting screw

Method: Play back the test tape and adjust so that the output of the 10 kHz section reaches the maximum and same phase for both the left and right channel.

4. Play back Frequency Characteristic Adjustment

Settings:
- Test tape: TTA-117E
- TAPE SELECTOR switch: CrO_2
- Adjustment locations: SFR101 (L-ch)
  SFR102 (R-ch)

Method: Play back the test tape and adjust SFR101, 102 so that the 1 kHz and 10 kHz output deviation are 0^{+2}_{-1} dB.

3. Play back Level Adjustment

Settings:
- Test tape: TTA-161
- TAPE SELECTOR: LH
- Adjustment locations: SFR103 (L-ch)
  SFR104 (R-ch)

Method: Play back the test tape and adjust so that the LINE output is 580mV.

5. Bias T
Settings:
Method:

6. LH RE
Adjust
Settings:
Method:

Settings d
- META
Settings:
Rating:
- CrO_2
Settings:
Rating:
- Fe-Cr
Settings:
Rating:

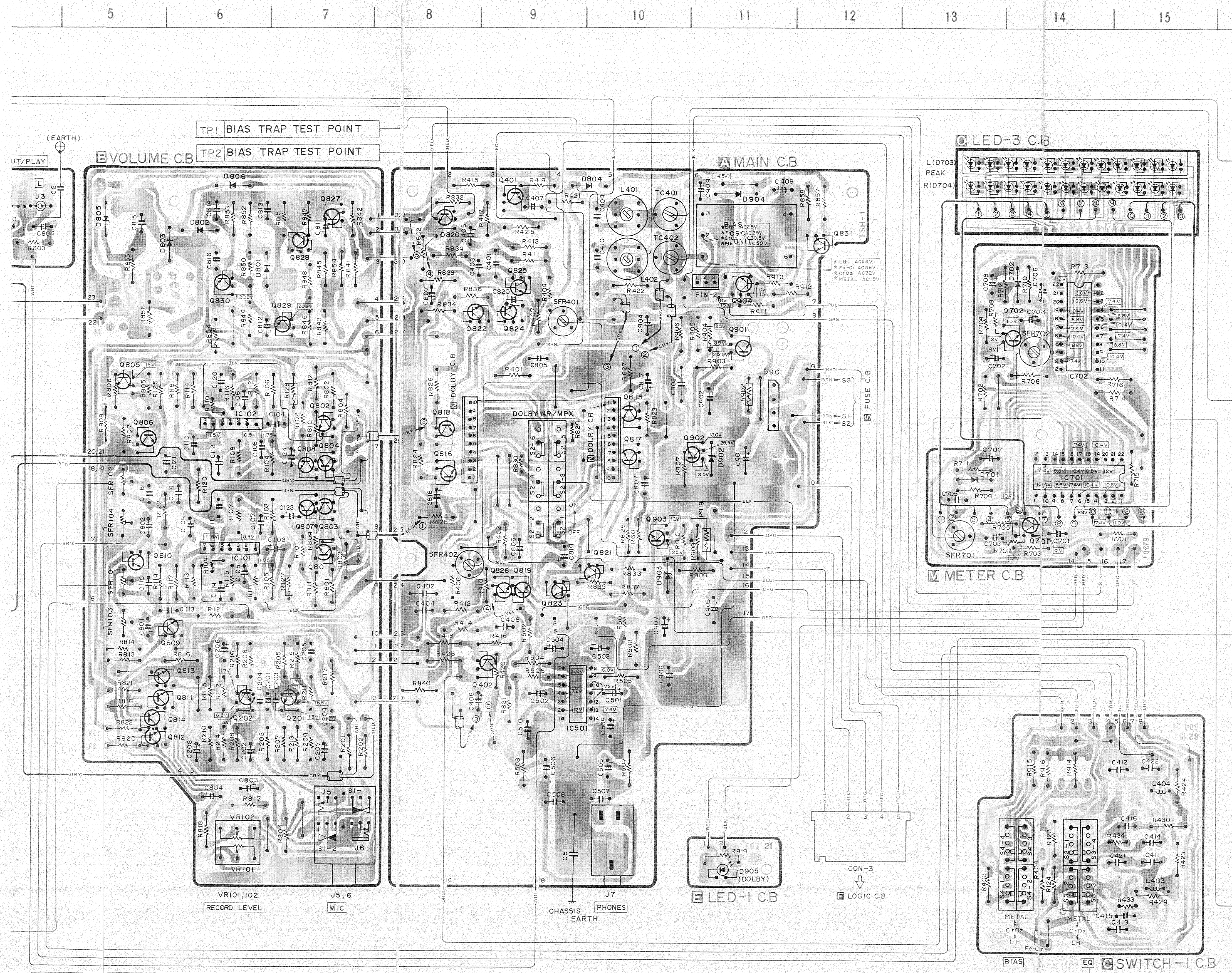
7. REC
- CrO_2
Settings

Settings c
- META
Settings:
Rating:
- Fe-Cr
Settings:
Rating:
- LH ta
Settings:
Rating:
Method:

8. Level
Settings:
Method:

NOTES (1) ▒ B(+) Pattern ░ Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals. An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.


5
6
7
8
9
10
11
12
13
14
15
TP1 BIAS TRAP TEST POINT
TP2 BIAS TRAP TEST POINT
(EARTH)
B VOLUME C.B
A MAIN C.B
Q LED-3 C.B
L(D703) PEAK R(D704)
M METER C.B
N DOLBY C.B
DOLBY NR/MPX
S FUSE C.B
E LED-1 C.B
D905 (DOLBY)
F LOGIC C.B
CON-3
C SWITCH-1 C.B
BIAS
EQ
TAPE SELECTOR
METAL
CrO2
LH
Fe-Cr
VR101,102
RECORD LEVEL
J5,6
MIC
CHASSIS EARTH
J7
PHONES
IC101
IC102
IC501
IC701
IC702
SFR101
SFR102
SFR103
SFR104
SFR401
SFR402
SFR701
SFR702
L401
L402
TC401
TC402
L403
L404
PIN-2
TSH-1

5. Bias Trap Coil Adjustment

Settings:
- Recording mode
- Test points: TP1 (L-ch)
  TP2 (R-ch)
- Adjustment locations: L401
  (L-ch)
  L402
  (R-ch)

Method: Adjust L401, 402 so that the voltage at test point TP1, 2 is reduced to minimum value.

6. LH REC/PB Frequency Characteristic Adjustment

Settings:
- Recording mode
- Test tape: CS-10
- Output level: MAX
- TAPE SELECTOR switch: LH
- Input signal: −30 dB, 400 Hz
  400 Hz
- Adjustment locations: TC401
  (L-ch)
  TC402
  (R-ch)

Method: Record and play back the 1 kHz and 10 kHz signals. Adjust TC401, 402 so that the 1 kHz and 10 kHz output deviation are 0 ± 0.5 dB.

Settings differ as below METAL, CrO_2 and LH
- **METAL tape**

Settings: • Test tape: TTA-119M
Rating: 0 ± 1.0 dB
- **CrO_2 tape**

Settings: • Test tape: TTA-119G
Rating: 0 ± 1.0 dB
- **Fe-Cr tape**

Settings: • Test tape: TTA-119E
Rating: 0 ± 1.0 dB

7. REC/PB Sensitivity Adjustment
- CrO_2 tape

Settings
- Recording mode
- Test tape: TTA-119G
- Input signal: −30 dB, 400 Hz
- Output level: MAX
- TAPE SELECTOR switch: LH
- Adjustment locations: SFR401
  (L-ch)
  SFR402
  (R-ch)

Settings differ as below METAL, Fe-Cr and LH.
- **METAL tape**

Settings: • Test tape: TTA-119M
Rating: 410mV ± 1.5 dB
- **Fe-Cr tape**

Settings: • Test tape: TTA-119E
Rating: 410 mV ± 1.5 dB
- **LH tape**

Settings: • Test tape: CS-10
Rating: 410 mV ± 1.5 dB
Method: Record and play back the test tape and adjust SFR401, 402 so that LINE OUTPUT is 410mV.

8. Level Indicator Adjustment

Settings:
- Recording mode
- Test tape: TTA-119D
- Input signal: 400 Hz, −10 dB
- DOLBY NR switch: OFF
- Adjustment location: SFR701
  (L-ch)
  SFR702
  (R-ch)

Method: Adjust RECORD VOLUME so that the LINE OUPUT is 410mV. Adjust SFR701, 702 so that 0 dB LED light up. Confirmed put out 0 dB LED when input signal decrease 1 dB.

3. Play back Level Adjustment

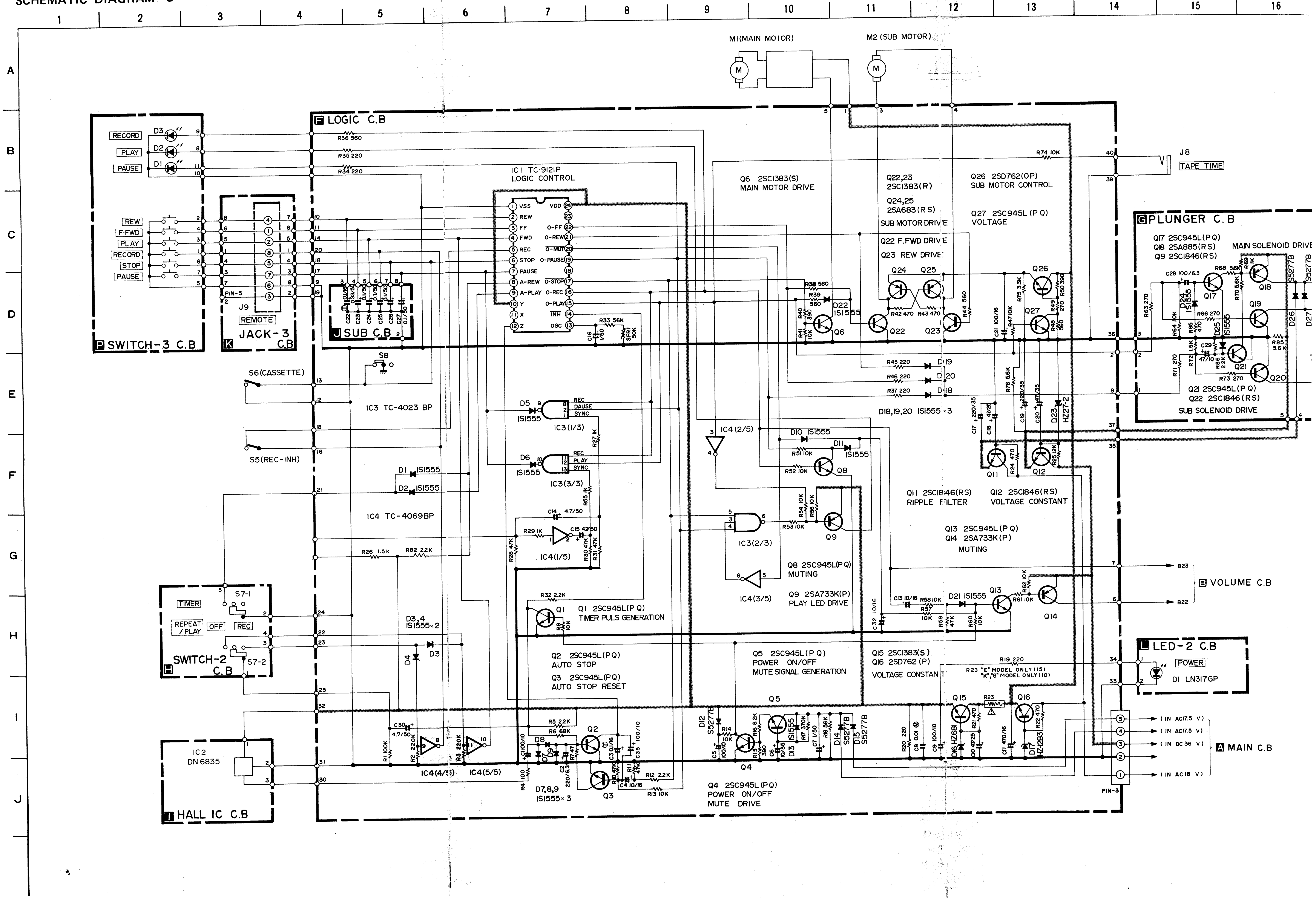
Settings:
- Test tape: TTA-161
- TAPE SELECTOR: LH
- Adjustment locations: SFR103
  (L-ch)
  SFR104
  (R-ch)

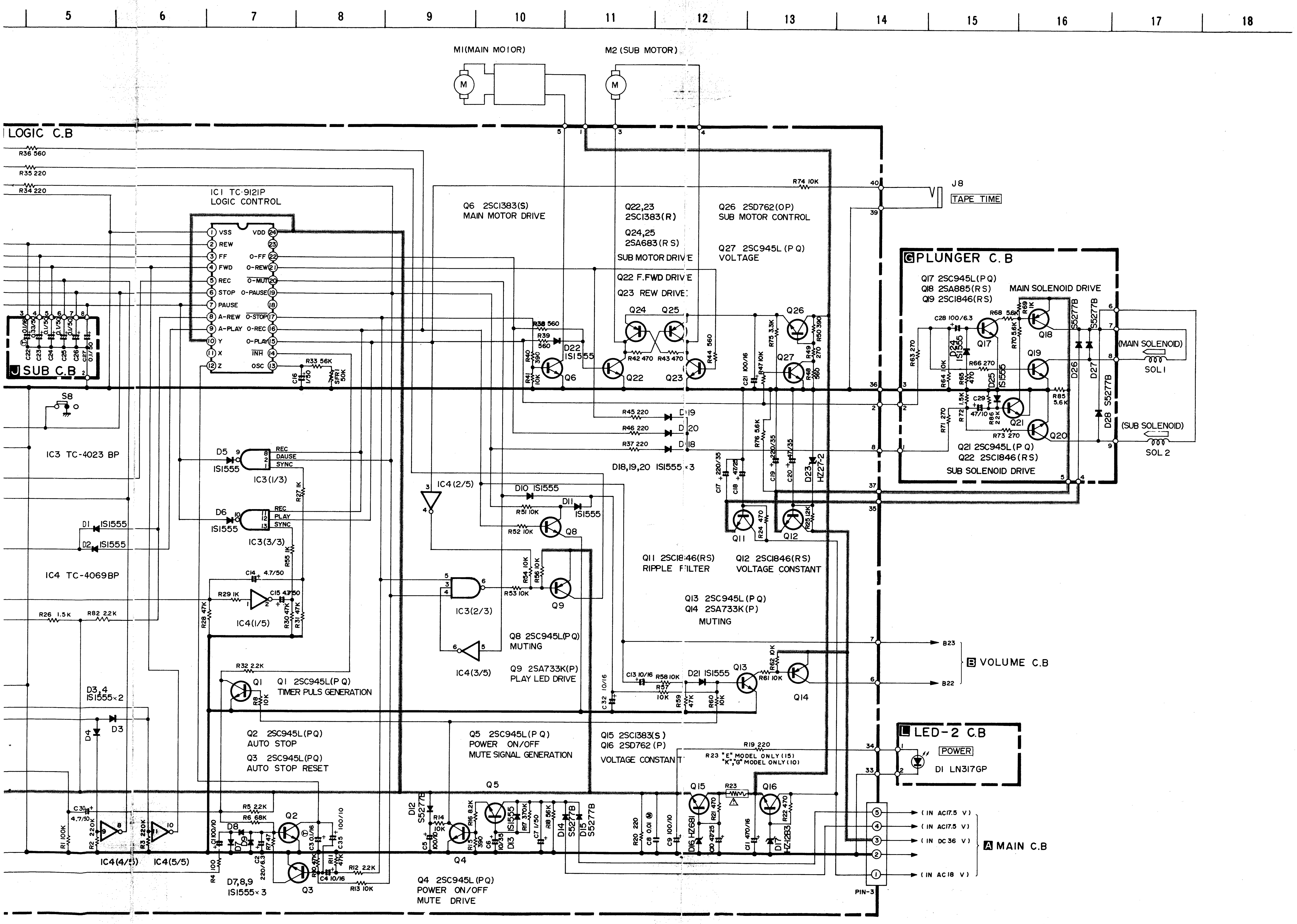
Method: Play back the test tape and adjust so that the LINE output is 580mV.

NOTES (1) ▨ B(+) Pattern ▨ Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals. An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.

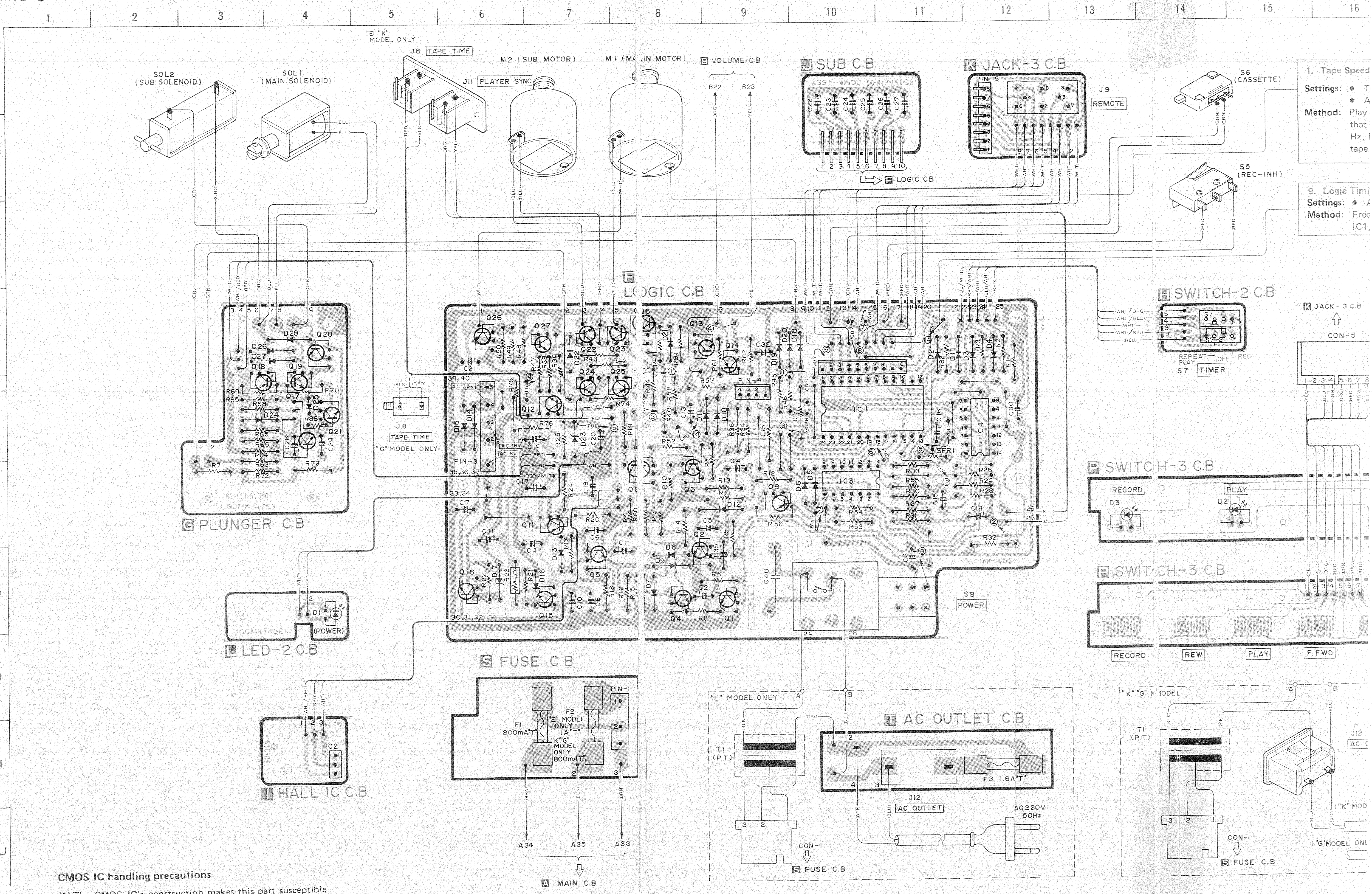
SCHEMATIC DIAGRAM-3


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
A B C D E F G H I J
M1(MAIN MOTOR)
M2(SUB MOTOR)
F LOGIC C.B
P SWITCH-3 C.B
RECORD
PLAY
PAUSE
D3
D2
D1
REW
F.FWD
PLAY
RECORD
STOP
PAUSE
K JACK-3 C.B
J9
REMOTE
PIN-5
J SUB C.B
C22 C23 C24 C25 C26 C27
S8
S6(CASSETTE)
S5(REC-INH)
R36 560
R35 220
R34 220
IC1 TC-9121P
LOGIC CONTROL
VSS REW FF FWD REC STOP PAUSE A-REW A-PLAY Y X Z
VDD O-FF O-REW O-MUT O-PAUSE O-STOP O-REC O-PLAY INH OSC
R33 56K
VR1 50K
C16
IC3 TC-4023 BP
D5 IS1555
REC PAUSE SYNC
IC3(1/3)
D6 IS1555
REC PLAY SYNC
IC3(3/3)
R27 1K
R55 1K
D1 IS1555
D2 IS1555
IC4 TC-4069BP
C14 4.7/50
C15 4.7/50
R29 1K
R28 47K
R30 47K
R31 47K
IC4(1/5)
R26 1.5K
R82 2.2K
S7-1
TIMER
REPEAT /PLAY
OFF
REC
H SWITCH-2 C.B
S7-2
D3,4 IS1555×2
D4
D3
R32 2.2K
Q1
Q1 2SC945L(PQ)
TIMER PULS GENERATION
R8 10K
Q2 2SC945L(PQ)
AUTO STOP
Q3 2SC945L(PQ)
AUTO STOP RESET
IC2 DN6835
I HALL IC C.B
C30 4.7/50
R1 100K
R2 220K
R3 220K
IC4(4/5)
IC4(5/5)
R4 100
C1 100/10
D7 D8 D9
D7,8,9 IS1555×3
C2 220/6.3
R7 47
R5 2.2K
R6 68K
C3 0.1/16
C35 100/10
R10 47K
R11 47K
C4 10/16
R12 2.2K
R13 10K
Q2
Q3
Q6 2SC1383(S)
MAIN MOTOR DRIVE
Q22,23 2SC1383(R)
Q24,25 2SA683(RS)
SUB MOTOR DRIVE
Q22 F.FWD DRIVE
Q23 REW DRIVE
Q26 2SD762(OP)
SUB MOTOR CONTROL
Q27 2SC945L(PQ)
VOLTAGE
R38 560
R39 560
D22 IS1555
R40 390
R41 10K
Q6
Q24 Q25
R42 470
R43 470
R44 560
Q22 Q23
C21 100/16
R47 10K
R75 3.3K
Q26
Q27
R49 270
R50 390
R48 560
R45 220
R46 220
R37 220
D19 D20 D18
D18,19,20 IS1555×3
R76 5.6K
C17 220/35
C18 47/25
C19 220/35
C20 47/35
D23 HZ27-2
IC4(2/5)
D10 IS1555
D11 IS1555
R51 10K
R52 10K
Q8
R54 10K
R56 10K
R53 10K
Q9
IC3(2/3)
IC4(3/5)
Q8 2SC945L(PQ)
MUTING
Q9 2SA733K(P)
PLAY LED DRIVE
Q11 Q12
R24 470
R25 12K
Q11 2SC1846(RS)
RIPPLE FILTER
Q12 2SC1846(RS)
VOLTAGE CONSTANT
Q13 2SC945L(PQ)
Q14 2SA733K(P)
MUTING
C13 10/16
R58 10K
R57 10K
C32 10/16
D21 IS1555
R59 47K
R60 10K
Q13
R62 10K
R61 10K
Q14
Q5 2SC945L(PQ)
POWER ON/OFF
MUTE SIGNAL GENERATION
Q15 2SC1383(S)
Q16 2SD762(P)
VOLTAGE CONSTANT
R19 220
R23 "E" MODEL ONLY (15) "K","G" MODEL ONLY (10)
Q5
D12 S5277B
R14 10K
C5 100/10
R16 8.2K
R15 390
C6 10/35
D13 IS1555
R17 370K
C7 1/50
R18 56K
D14 S5277B
D15 S5277B
Q4
Q4 2SC945L(PQ)
POWER ON/OFF
MUTE DRIVE
R20 220
C8 0.01
C9 100/10
D16 HZ6B1
C10 47/25
R21 470
Q15
R23
Q16
C11 470/16
D17 HZ12B3
R22 470
R74 10K
J8
TAPE TIME
G PLUNGER C.B
Q17 2SC945L(PQ)
Q18 2SA885(RS)
Q19 2SC1846(RS)
MAIN SOLENOID DRIVE
C28 100/6.3
R68 56K
R69 1K
R70 5.6K
Q17 Q18 Q19
R63 270
D24 IS1555
R66 270
R64 10K
R65 470
D25 IS1555
D26 D27
S5277B S5277B
R71 270
R72 1.5K
C29 47/10
R86 2.2K
Q21
R73 270
R85 5.6K
Q20
Q21 2SC945L(PQ)
Q22 2SC1846(RS)
SUB SOLENOID DRIVE
B23
B22
B VOLUME C.B
L LED-2 C.B
POWER
D1 LN317GP
(IN AC17.5 V)
(IN AC17.5 V)
(IN DC36 V)
(IN AC18 V)
A MAIN C.B
PIN-3


5 6 7 8 9 10 11 12 13 14 15 16 17 18
M1(MAIN MOTOR)
M2 (SUB MOTOR)
LOGIC C.B
R36 560
R35 220
R34 220
IC1 TC-9121P
LOGIC CONTROL
VSS VDD REW O-FF FF O-REW FWD O-MUT REC O-PAUSE STOP PAUSE O-STOP A-REW O-REC A-PLAY O-PLAY Y X INH Z OSC
R33 56K
SFR1 50K
C16 1/50
J SUB C.B
C22 0.1/50 C23 3.3/50 C24 0.1/50 C25 1/50 C26 0.1/50 C27 0.1/50
S8
IC3 TC-4023 BP
IC4 TC-4069BP
D5 1S1555
D6 1S1555
IC3(1/3)
IC3(3/3)
REC DAUSE SYNC
REC PLAY SYNC
R27 1K
R55 1K
D1 1S1555
D2 1S1555
C14 4.7/50
R29 1K
C15 4.7/50
IC4(1/5)
R28 47K
R30 47K
R31 47K
R26 1.5K
R82 2.2K
R32 2.2K
Q1 2SC945L(PQ)
TIMER PULS GENERATION
R8 10K
D3,4 1S1555×2
D3 D4
Q2 2SC945L(PQ)
AUTO STOP
Q3 2SC945L(PQ)
AUTO STOP RESET
C30 4.7/50
R1 100K
R2 220K
R3 220K
IC4(4/5)
IC4(5/5)
R5 2.2K
R6 68K
D8
C1 100/10
R7 47
C2 220/6.3
R4 100
C3 0.1/16
C35 100/10
R10 47K
R11 47K
C4 10/16
R12 2.2K
R13 10K
D7,8,9 1S1555×3
Q6 2SC1383(S)
MAIN MOTOR DRIVE
Q22,23 2SC1383(R)
Q24,25 2SA683(RS)
SUB MOTOR DRIVE
Q22 F.FWD DRIVE
Q23 REW DRIVE
Q26 2SD762(OP)
SUB MOTOR CONTROL
Q27 2SC945L(PQ)
VOLTAGE
R74 10K
J8
TAPE TIME
R38 560
R39 560
D22 1S1555
R40 390
R41 10K
R42 470
R43 470
R44 560
R45 220 D19
R46 220 D20
R37 220 D18
D18,19,20 1S1555×3
R75 3.3K
R50 390
R49 270
R48 560
R47 10K
C21 100/16
R76 5.6K
C17 220/35
C18 47/22
C19 220/35
C20 47/35
D23 HZ27-2
Q11 Q12
R24 470
R25 12K
Q11 2SC1846(RS)
RIPPLE FILTER
Q12 2SC1846(RS)
VOLTAGE CONSTANT
IC4(2/5)
D10 1S1555
R51 10K
D11 1S1555
R52 10K
Q8
R54 10K
R56 10K
R53 10K
Q9
IC3(2/3)
IC4(3/5)
Q8 2SC945L(PQ)
MUTING
Q9 2SA733K(P)
PLAY LED DRIVE
Q13 2SC945L(PQ)
Q14 2SA733K(P)
MUTING
C13 10/16
R58 10K
R57 10K
D21 1S1555
R59 47K
R60 10K
R61 10K
R62 10K
C32 10/16
B23
B22
B VOLUME C.B
Q5 2SC945L(PQ)
POWER ON/OFF
MUTE SIGNAL GENERATION
Q15 2SC1383(S)
Q16 2SD762(P)
VOLTAGE CONSTANT
R19 220
R23 "E" MODEL ONLY (15) "K","G" MODEL ONLY (10)
D12 S5277B
R14 10K
C5 100/10
R16 8.2K
R15 390
C6 10/35
D13 1S1555
R17 370K
C7 1/50
R18 56K
D14 S5277B
D15 S5277B
R20 220
C8 0.01
C9 100/10
D16 HZ6B1
C10 47/25
R21 470
C11 470/16
D17 HZ12B3
R22 470
Q4 2SC945L(PQ)
POWER ON/OFF
MUTE DRIVE
G PLUNGER C.B
Q17 2SC945L(PQ)
Q18 2SA885(RS)
Q19 2SC1846(RS)
MAIN SOLENOID DRIVE
C28 100/6.3
R68 5.6K
R69 1K
R70 5.6K
R63 270
D24 1S1555
R64 10K
R65 470
R66 270
D25 1S1555
C29 47/10
R72 1.5K
R86 2.2K
R71 270
R73 270
R85 5.6K
D26 S5277B
D27 S5277B
D28 S5277B
(MAIN SOLENOID)
SOL 1
(SUB SOLENOID)
SOL 2
Q21 2SC945L(PQ)
Q22 2SC1846(RS)
SUB SOLENOID DRIVE
L LED-2 C.B
POWER
D1 LN317GP
(IN AC17.5 V)
(IN AC17.5 V)
(IN DC36 V)
(IN AC18 V)
A MAIN C.B
PIN-3

AIWA

WIRING-3


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
A B C D E F G H I J
SOL2 (SUB SOLENOID)
SOL1 (MAIN SOLENOID)
"E" "K" MODEL ONLY
J8 TAPE TIME
J11 PLAYER SYNC
M2 (SUB MOTOR)
M1 (MAIN MOTOR)
B VOLUME C.B
B22
B23
J SUB C.B
K JACK-3 C.B
PIN-5
J9 REMOTE
F LOGIC C.B
S6 (CASSETTE)
S5 (REC-INH)
F LOGIC C.B
H SWITCH-2 C.B
S7 TIMER
REPEAT PLAY
OFF
REC
K JACK-3 C.B
CON-5
G PLUNGER C.B
82-157-613-01
GCMK-45EX
J8 TAPE TIME
"G" MODEL ONLY
PIN-3
PIN-4
IC1
IC3
IC4
SFR1
GCMK-45EX
P SWITCH-3 C.B
RECORD
PLAY
D3
D2
P SWITCH-3 C.B
RECORD
REW
PLAY
F.FWD
S8 POWER
L LED-2 C.B
D1 (POWER)
S FUSE C.B
PIN-1
F1 800mA"T"
F2 "E" MODEL ONLY 1A"T"
"K""G" MODEL ONLY 800mA"T"
I HALL IC C.B
IC2
A34
A35
A33
A MAIN C.B
"E" MODEL ONLY
T1 (P.T)
T AC OUTLET C.B
F3 1.6A"T"
J12 AC OUTLET
AC 220V 50Hz
CON-1
S FUSE C.B
"K" "G" MODEL
T1 (P.T)
J12 AC
("K" MOD
("G" MODEL ONL
CON-1
S FUSE C.B

1. Tape Speed
Settings: • T
• A
Method: Play
that
Hz, I
tape

9. Logic Timi
Settings: • A
Method: Freq
IC1,

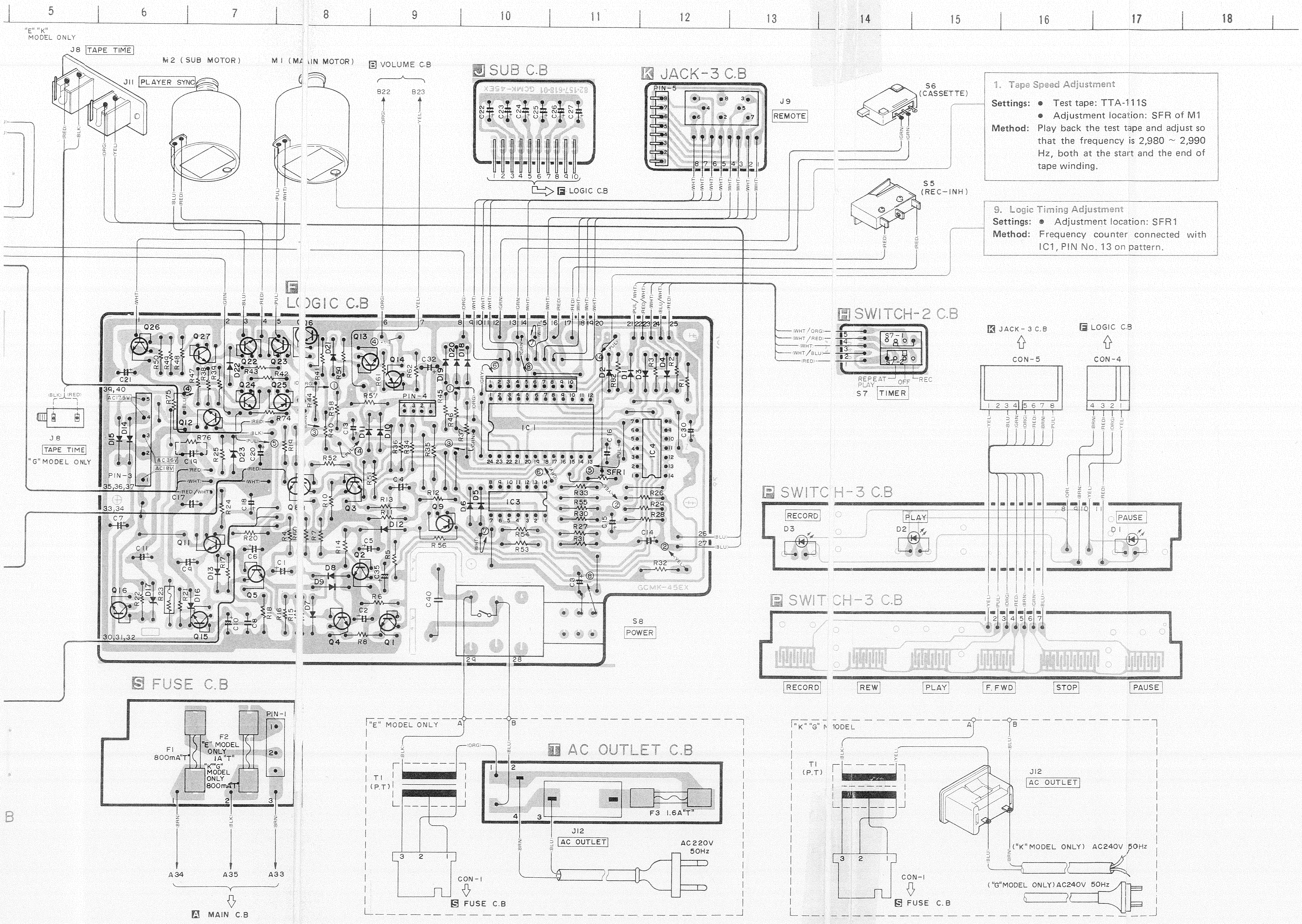
CMOS IC handling precautions

(1) The CMOS IC's construction makes this part susceptible to damage by static electricity and so take sufficient care.

(2) Do not perform a continuity test with a tester, etc. Refer to the circuit voltages of each part.

NOTES (1) ▨ B(+) Pattern ▨ Component side pattern ▨ Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.


5
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11
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13
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16
17
18
"E" "K" MODEL ONLY
J8 TAPE TIME
J11 PLAYER SYNC
M2 (SUB MOTOR)
M1 (MAIN MOTOR)
B VOLUME C.B
B22
B23
J SUB C.B
82-157-618-01 GCMK-45EX
C22
C23
C24
C25
C26
C27
F LOGIC C.B
K JACK-3 C.B
PIN-5
J9
REMOTE
S6 (CASSETTE)
S5 (REC-INH)
F LOGIC C.B
Q26
Q27
Q22
Q23
Q24
Q25
Q12
Q13
Q14
Q16
IC1
IC3
IC4
SFR1
PIN-4
PIN-3
Q11
Q16
Q15
Q5
Q4
Q2
Q3
Q8
Q9
Q1
C40
GCMK-45EX
S8
POWER
J8
TAPE TIME
"G" MODEL ONLY
H SWITCH-2 C.B
REPEAT PLAY
OFF
REC
S7 TIMER
K JACK-3 C.B
F LOGIC C.B
CON-5
CON-4
P SWITCH-3 C.B
RECORD
PLAY
PAUSE
D3
D2
D1
P SWITCH-3 C.B
RECORD
REW
PLAY
F.FWD
STOP
PAUSE
S FUSE C.B
PIN-1
F1 800mA"T"
F2 "E" MODEL ONLY 1A "T"
"K" "G" MODEL ONLY 800mA"T"
A34
A35
A33
A MAIN C.B
"E" MODEL ONLY
T1 (P.T)
T AC OUTLET C.B
F3 1.6A"T"
J12
AC OUTLET
AC220V 50Hz
CON-1
S FUSE C.B
"K" "G" MODEL
T1 (P.T)
J12
AC OUTLET
("K" MODEL ONLY) AC240V 50Hz
("G" MODEL ONLY) AC240V 50Hz
CON-1
S FUSE C.B
B

1. Tape Speed Adjustment

Settings: ● Test tape: TTA-111S
● Adjustment location: SFR of M1

Method: Play back the test tape and adjust so that the frequency is 2,980 ~ 2,990 Hz, both at the start and the end of tape winding.

9. Logic Timing Adjustment

Settings: ● Adjustment location: SFR1

Method: Frequency counter connected with IC1, PIN No. 13 on pattern.

NOTES (1) ▨ B(+) Pattern ▨ Component side pattern ▨ Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.

CIRCUIT EXPLANATION

Unlike previously used slide type switches, this deck employs transistors for switching between recording and playback. The Q827-Q830 circuit produces a governing signal for recording and playback.

(1) When the power is turned on, current flows through R843 to charge C811, and when the latter is charged completely, voltage in divided at an equal ratio to R843, R845 and R847 and Q828 comes on.

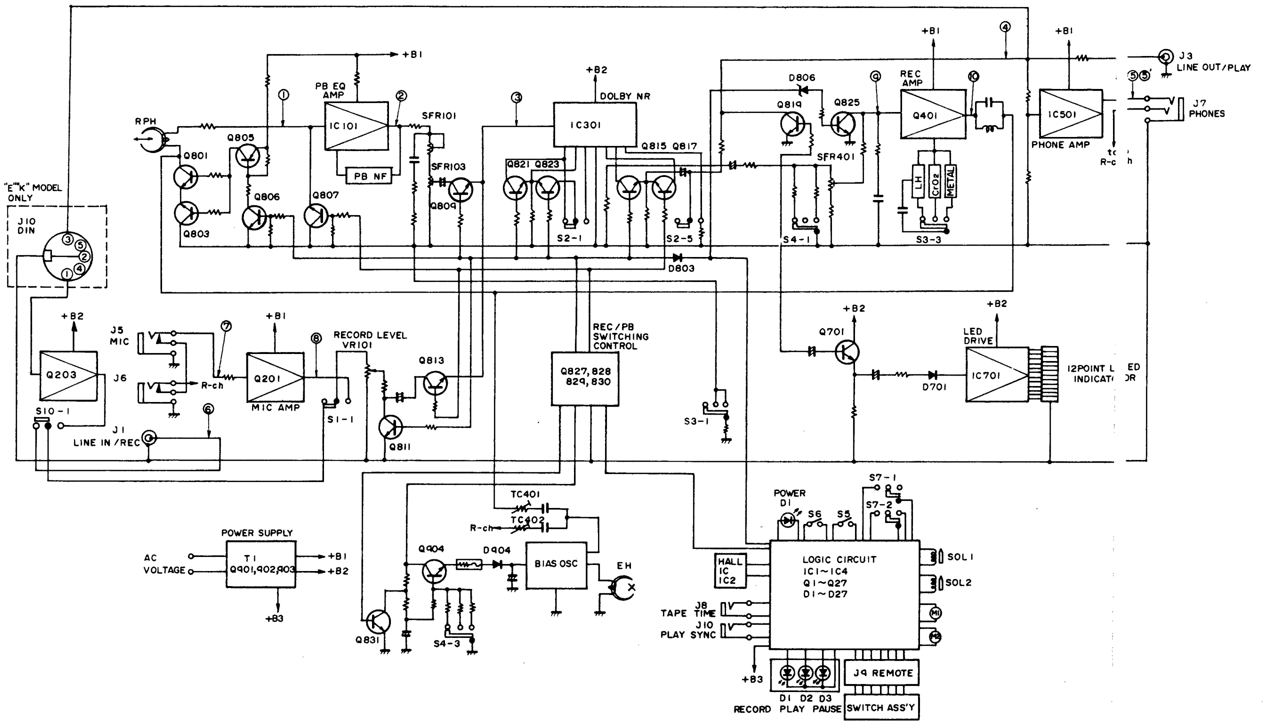
(2) When Q828 comes on, Q829 will do likewise, and this will result in playback governor voltage to be produced from the collector in Q828. At this time since the voltage passing through D801 will be increased. Q830 will go off. Performed when the power is turned on, mode will be switched to playback.

(3) When recording, the O-Rec of the logic IC (TC-9121P) reaches H level and the voltage of the IC is presented to the base of Q827 through R841 and Q827 comes on. According C811 will discharge through R859 then base voltage of Q828 becomes low and Q829 goes off.

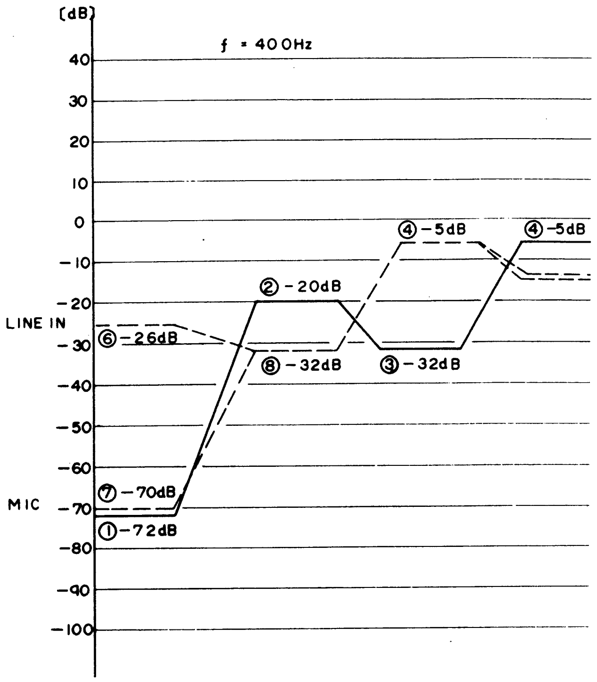
(4) When Q828 goes off, Q829 will also go off and since no voltage will flow in the collector the playback governor, voltage is not produced. In this connection, D801 will not produce any voltage, then bias voltage divided by the resistors of R849, R850, R852 will be produced to transistor Q830 and it will turn to on. After this, recording governor voltage is generated from its collector.

(5) Muting is achieved by making transistors Q819, 820, 825 and 826 turn ON.

BLOCK DIAGRAM


"E""K" MODEL ONLY
J10 DIN
RPH
Q801
Q803
Q805
Q806
Q807
+B1
PB EQ AMP
IC101
PB NF
①
②
③
SFR101
SFR103
Q809
+B2
DOLBY NR
IC301
Q821 Q823
Q815 Q817
S2-1
S2-5
D803
D806
Q819
Q825
SFR401
S4-1
⑨
REC AMP
Q401
⑩
LH
CrO2
METAL
S3-3
④
IC501
PHONE AMP
to R-ch
J3 LINE OUT/PLAY
⑤⑤'
J7 PHONES
Q203
S10-1
J5 MIC
J6
R-ch
⑦
Q201
MIC AMP
⑧
RECORD LEVEL VR101
S1-1
Q813
Q811
J1 LINE IN /REC
⑥
REC/PB SWITCHING CONTROL
Q827, 828 829, 830
S3-1
Q701
D701
LED DRIVE
IC701
12POINT LED INDICATOR
POWER SUPPLY
AC VOLTAGE
T1 Q901,902,903
+B3
TC401
TC402
Q904
D904
BIAS OSC
EH
Q831
S4-3
POWER D1
S6
S5
S7-1
S7-2
HALL IC IC2
LOGIC CIRCUIT IC1~IC4 Q1~Q27 D1~D27
SOL1
SOL2
M1
M2
J8 TAPE TIME
J10 PLAY SYNC
J9 REMOTE
D1 D2 D3
RECORD PLAY PAUSE
SWITCH ASS'Y

LEVEL DIAGRAM



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843 to
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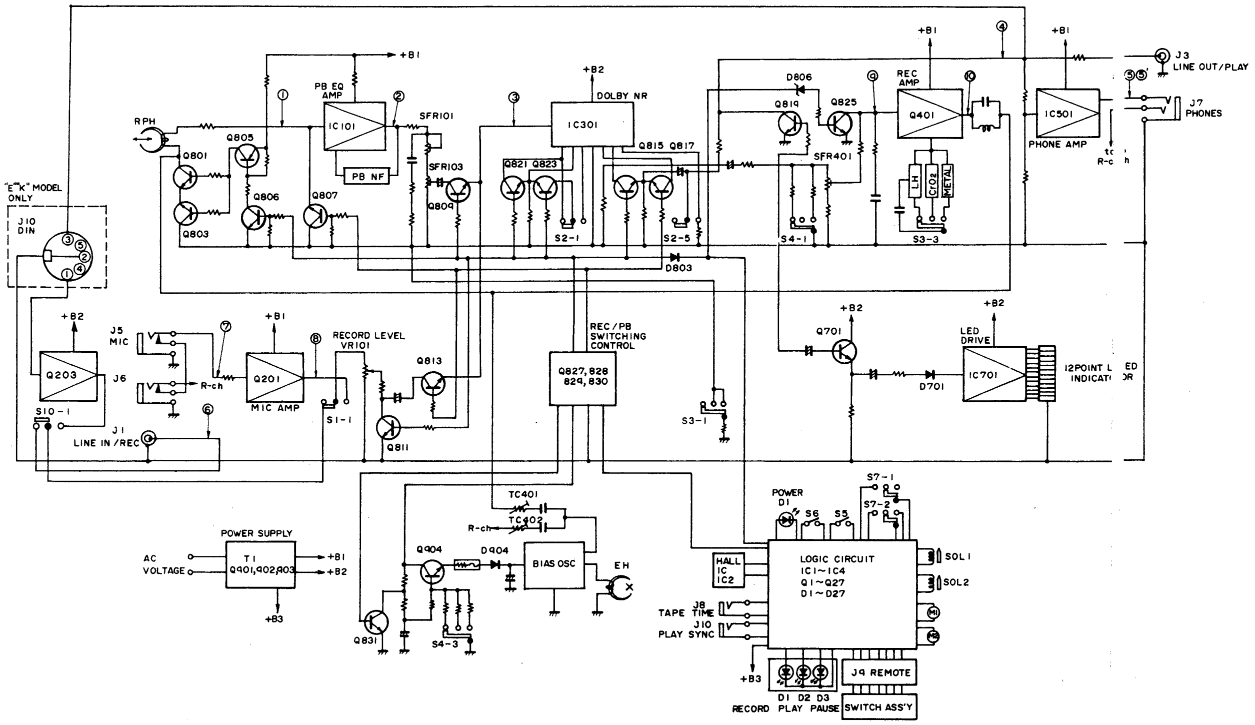
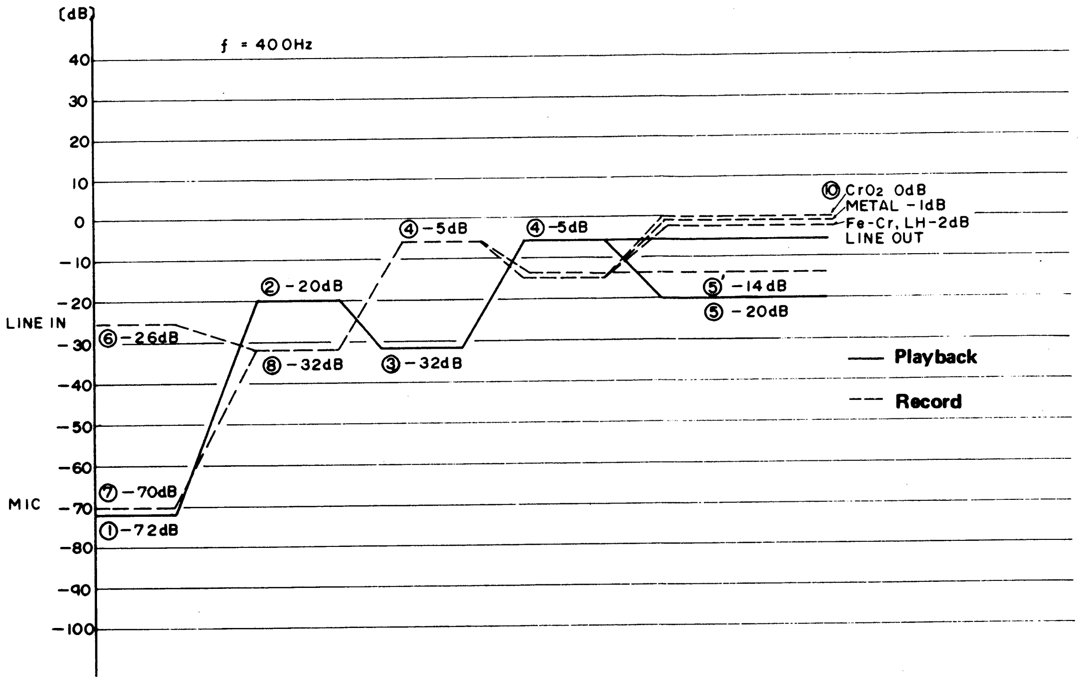
BLOCK DIAGRAM


RPH
Q801
Q803
Q805
Q806
Q807
PB EQ AMP
IC101
PB NF
+B1
①
②
SFR101
SFR103
Q809
③
+B2
DOLBY NR
IC301
Q821 Q823
Q815 Q817
S2-1
S2-5
D803
D806
Q819
Q825
SFR401
S4-1
⑨
REC AMP
Q401
⑩
LH
CrO2
METAL
S3-3
④
+B1
IC501
PHONE AMP
J3 LINE OUT/PLAY
⑤⑤'
J7 PHONES
to R-ch
"E""K" MODEL ONLY
J10 DIN
③ ⑤ ② ④ ①
+B2
Q203
J6
S10-1
J5 MIC
R-ch
⑦
+B1
Q201
MIC AMP
⑧
RECORD LEVEL VR101
S1-1
Q813
Q811
J1 LINE IN /REC
⑥
REC/PB SWITCHING CONTROL
Q827,828 829,830
S3-1
+B2
Q701
LED DRIVE
+B2
IC701
D701
12POINT L ED INDICAT OR
POWER SUPPLY
AC VOLTAGE
T1 Q901,902,903
+B1
+B2
+B3
TC401
TC402
R-ch
Q904
D904
BIAS OSC
EH
Q831
S4-3
POWER D1
S6
S5
S7-1
S7-2
HALL IC IC2
LOGIC CIRCUIT IC1~IC4 Q1~Q27 D1~D27
SOL1
SOL2
M1
M2
J8 TAPE TIME
J10 PLAY SYNC
+B3
D1 D2 D3
RECORD PLAY PAUSE
J9 REMOTE
SWITCH ASS'Y

LEVEL DIAGRAM



AIWA

ELECTRICAL MAIN PARTS LIST

Symbol No.	Part No.	Description
≪MAIN CIRCUIT BOARD SECTION≫		
PCB-A	82-157-602-31	Main circuit board
IC501	87-027-382-01	IC, LA4170
Q401,402,820, 902	89-309-455-61	Transistor, 2SC945L(PQ)
Q815,816,817, 818,819,820, 821,822,823, 824	89-309-456-01	Transistor, 2SC945L(P)
Q825,826	89-320-014-01	Transistor, 2SC2001K(S)
Q901,903,904	89-408-804-51	Transistor, 2SD880Y(GR)
D901	87-027-376-01	Encapsulated, 1B4B41
D902	87-027-686-01	Zener diode, HZ12A1
D903	87-027-509-01	Zener diode HZ12B3
D904	87-027-097-01	Diode, 1S1555
L401,402	82-304-701-01	Coil, 22mH
TC401,402	85-708-604-21	Trimmer, 30pF
BIAS OSC UNIT	82-157-641-01	Bias OSC unit
J7	87-032-983-01	Jack, 6.3ϕ (PHONES)
S2	82-324-631-01	Push-switch (DOLBY-NR)
SFR401,402	87-021-614-01	Semi-fixed resistor, 22kΩ-B
PIN-2	87-032-903-01	Pin, 3P
		< Resistors >
⚠ R918	87-029-117-01	10Ω ½w Fuse resistor
⚠ R904	87-029-084-01	33Ω ½w Fuse resistor
⚠ R902	87-029-092-01	470Ω ¼w Fuse resistor
		< Capacitors >
C902	87-015-561-01	330μF 50V Electrolytic
C901	87-015-641-01	1000μF 50V Electrolytic
C906	87-015-466-01	330μF 25V Electrolytic
C905	87-015-459-01	1000μF 25V Electrolytic
≪VOLUME CIRCUIT BOARD SECTION≫		
PCB-B	82-157-603-31	Volume circuit board
IC101,102	87-027-182-01	IC, μPC1023H
Q201,202	89-312-222-01	Transistor, 2SC1222E
Q801,802,803, 804	89-322-406-01	Transistor, 2SC2240(BL)
Q805	89-109-706-01	Transistor, 2SA970(BL)
Q806,809,810, 811,812,813, 814	89-309-456-01	Transistor, 2SC945L(P)
Q807,808	89-320-014-01	Transistor, 2SC2001K(S)
Q827,828,831	89-304-455-61	Transistor, 2SC945L(PQ)
Q829,830	89-107-335-01	Transistor, 2SA733K(P)
D801,802,803	87-027-097-01	Diode, 1S1555
D805,806	87-027-393-01	Zener diode, HZ4C2
J5,6	87-032-957-01	Jack, 6.3ϕ w/switch (MIC)
VR101,102	82-150-621-01	Volume, 50kΩ-Ax2 (REC LEVEL)
SFR101,102, 103,104	87-021-480-01	Semi-fixed resistor, 50kΩ-B
		< Resistors >
⚠ R127,128,854	87-029-082-01	100Ω ¼w Fuse resistor
R111,112	88-175-684-01	680kΩ ¼w LN
		< Capacitors >
C205,206,803, 804	87-015-241-01	1μF 50V Electrolytic LL
C201,202	87-015-243-01	3.3μF 50V Electrolytic LL
C103,104,109, 110	87-015-246-01	4.7μF 25V Electrolytic LL
C115,116	87-014-053-01	680pF PP
≪SWITCH-1 CIRCUIT BOARD SECTION≫		
PCB-C	82-157-604-21	Switch-1 circuit board
S3,4	82-304-628-01	Lever switch (EQ, BIAS)
L403,404	87-005-093-01	Micro inductor coil, 4.7mH
≪JACK-1 CIRCUIT BOARD SECTION≫		
PCB-D	82-157-605-31	Jack-1 circuit board (G model only)
J1,2,3,4	82-157-644-01	Pin jack ass'y (LINE IN/REC, LINE OUT/PLAY) (G model only)
≪LED-1 CIRCUIT BOARD SECTION≫		
PCB-E	82-157-607-21	LED-1 circuit board
D1	87-027-543-01	LED, LN317GP (DOLBY-NR)
≪LOGIC CIRCUIT BOARD SECTION≫		
PCB-F	82-157-612-31	Logic circuit board
IC1	87-027-477-01	IC, TC-9121P
IC3	87-027-595-01	IC, TC-4023BP
IC4	87-027-651-01	IC, TC-4069
Q1,2,3,4,5 8,13,27	89-309-455-61	Transistor, 2SC945L(PQ)
Q6,15,22,23	89-313-833-01	Transistor, 2SC1383(R)
Q9,14	89-107-335-61	Transistor, 2SA733K(P)
Q11,12	89-318-464-51	Transistor, 2SC1846(RS)
Q24,25	89-106-834-51	Transistor, 2SA683(RS)
Q16,26	89-407-624-51	Transistor, 2SD762(OP)
D1,2,3,4,5, 6,7,8,9,10, 11,13,18,19, 20,21,22	87-027-097-01	Diode, 1S1555
D12,14,15	87-027-365-01	Diode, S5277B
D16	87-027-475-01	Zener diode, HZ6B1
D17	87-027-509-01	Zener diode, HZ12B3
D23	87-027-479-01	Zener diode, HZ27-2
⚠ S8	87-031-589-01	Push-switch (POWER)
SFR1	87-021-480-01	Semi-fixed resistor, 50kΩ-B
PIN-4	87-032-987-01	Pin, 4P
PIN-3	82-481-697-01	Pin, 5P
		< Resistors >
⚠ R23	87-029-094-01	15Ω ¼w Fuse resistor (E model only)
⚠ R23	87-029-017-01	10Ω ¼w Fuse resistor (K,G model only)
		< Capacitors >
C17,19	87-015-533-01	220μF 35V Electrolytic LL
C22	87-015-382-01	0.1μF 16V Tantalum
⚠ C40	87-019-105-01	0.022μF PP
≪PLUNGER CIRCUIT BOARD SECTION≫		
PCB-G	82-157-613-21	Plunger circuit board
Q17,21	89-309-455-61	Transistor, 2SC945L(PQ)
Q18	89-108-854-51	Transistor, 2SA885(RS)
Q19,20	89-318-464-51	Transistor, 2SC1846(RS)
D24,25	87-027-097-01	Diode, 1S1555
D26,27,28	87-027-365-01	Diode, S5277B
≪SWITCH-2 CIRCUIT BOARD SECTION≫		
PCB-H	82-157-614-21	Switch-2 circuit board
S7	87-031-502-01	Rotary switch (REPEAT)
≪HALL IC CIRCUIT BOARD SECTION≫		
PCB-I	82-157-616-21	Hall IC circuit board
IC2	87-027-478-01	IC, DN-6835
≪SUB CIRCUIT BOARD SECTION≫		
PCB-J	82-157-618-21	Sub circuit board
	87-032-640-01	Pin, 10P
≪JACK-3 CIRCUIT BOARD SECTION≫		
PCB-K	82-157-620-11	Jack-3 circuit board
J9	87-032-985-01	DIN socket, 8P (REMOTE)
PIN-5	87-032-995-01	Pin, 7P
≪LED-2 CIRCUIT BOARD SECTION≫		
PCB-L	82-157-619-21	LED-2 circuit board
D1	87-027-543-01	LED, LN317GP (POWER)
≪METER CIRCUIT BOARD SECTION≫		
PCB-M	82-157-622-11	Meter circuit board
IC701,702	87-027-594-01	IC, IR2E05
Q701,702	89-309-455-61	Transistor, 2SC945L(PQ)
D701,702	88-052-188-11	Diode, 1S188(FM)
SFR701,702	87-021-609-01	Semi-fixed resistor, 1kΩ-B
≪DOLBY CIRCUIT BOARD SECTION≫		
	87-033-162-01	Dolby circuit board ass'y w/PCB-N circuit board
≪LED-3 CIRCUIT BOARD SECTION≫		
D702,703	87-027-593-01	LED w/PCB O circuit board
≪SWITCH-3 CIRCUIT BOARD SECTION≫		
	82-157-645-01	Push-key ass'y w/PCB-P circuit board
≪SWITCH-4 CIRCUIT BOARD SECTION≫ = "E", "K" model only		
PCB-Q	82-157-606-11	Switch-4 circuit board
S10	87-031-460-01	Slide switch (INPUT SELECTOR)
≪DIN CIRCUIT BOARD SECTION≫ = "E", "K" model only		
PCB-D	82-157-605-21	Jack-1 circuit board
PCB-R	82-157-610-01	DIN circuit board
Q203,204, 205	89-309-455-61	Transistor, 2SC945L(PQ)
D201	87-027-097-01	Diode, 1S1555
RY1	84-184-612-01	Reed relay, HA212N
J1,2,3,4 10	82-157-653-01	Jack ass'y (LINE IN/REC, LINE OUT/PLAY, DIN)
≪FUSE CIRCUIT BOARD SECTION≫		
⚠ PCB-S	82-157-608-01	Fuse circuit board
⚠ F1	87-035-060-01	Fuse, "T" 800mA (E model only)
⚠ F1,2	87-035-221-01	Fuse, "T" 800mA (K,G model only)
	87-098-015-01	Fuse label, "T" 800mA
⚠ F2	87-035-222-01	Fuse, "T" 1A (E model only)
	87-098-016-01	Fuse label, "T" 1A (E model only)
⚠	87-033-147-01	Fuse clamp
PIN-1	87-032-897-01	Pin, 3P
≪AC OUTLET CIRCUIT BOARD SECTION≫ = "E" model only		
⚠ PCB-T	82-157-654-01	AC outlet circuit board
⚠ J12	87-049-014-01	AC ouetlt
	82-304-743-01	Terminal, 1P
⚠ F3	87-035-224-01	Fuse, "T" 1.6A
⚠	87-033-147-01	Fuse clamp
≪MISCELLANEOUS≫		
⚠ T1	82-157-635-01	Power transformer (E model only)
⚠ T1	82-157-636-01	Power transformer (K model only)
⚠ T1	82-157-637-01	Power transformer (G model only)
RPH	87-046-177-01	REC/PB Head
EH	87-046-176-01	Erase head
M1	87-045-135-01	Motor, DC-EG
M2	82-319-617-01	Motor, DC (Sub)
SOL1	82-157-623-11	Solenoid
SOL2	82-304-640-11	Solenoid
S5	82-319-613-01	Micro switch (REC-INH)
S6	82-304-724-01	Micro switch (CASSETTE)
⚠	87-034-877-01	AC power cord (E model only)
⚠	87-034-872-01	AC power cord (K model only)
⚠	87-034-878-01	AC power cord (G model only)
⚠	87-085-166-01	Holder, AC power cord (E,K model only)
⚠	87-085-165-01	Cord bushing (G model only)
J8,11	87-049-007-01	Jack ass'y 2.5ϕ (TAPE TIME,PLAYER SYNC) (E,K model only)
J8	87-049-006-01	Jack ass'y 2.5ϕ (TAPE TIME) (G model only)
⚠ J12	87-032-996-01	AC outlet (K,G model only)
CON-2	82-157-673-01	Connector ass'y, 3P
CON-3	82-157-674-01	Connector ass'y, 5P
	82-157-647-11	Ribbon cord
	82-157-648-11	Ribbon cord
	82-157-649-11	Ribbon cord
	82-157-650-31	Ribbon cord
	82-157-651-31	Ribbon cord
	82-157-652-31	Ribbon cord

⚠ This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications. Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

Symbol No.	Part No.	Description
C103,104,109, 110	87-015-246-01	4.7μF 25V Electrolytic LL
C115,116	87-014-053-01	680pF PP

≪SWITCH-1 CIRCUIT BOARD SECTION≫

PCB-C	82-157-604-21	Switch-1 circuit board
S3,4	82-304-628-01	Lever switch (EQ, BIAS)
L403,404	87-005-093-01	Micro inductor coil, 4.7mH

≪JACK-1 CIRCUIT BOARD SECTION≫

PCB-D	82-157-605-31	Jack-1 circuit board (G model only)
J1,2,3,4	82-157-644-01	Pin jack ass'y (LINE IN/REC, LINE OUT/PLAY) (G model only)

≪LED-1 CIRCUIT BOARD SECTION≫

PCB-E	82-157-607-21	LED-1 circuit board
D1	87-027-543-01	LED, LN317GP (DOLBY-NR)

≪LOGIC CIRCUIT BOARD SECTION≫

PCB-F	82-157-612-31	Logic circuit board
IC1	87-027-477-01	IC, TC-9121P
IC3	87-027-595-01	IC, TC-4023BP
IC4	87-027-651-01	IC, TC-4069
Q1,2,3,4,5 8,13,27	89-309-455-61	Transistor, 2SC945L(PQ)
Q6,15,22,23	89-313-833-01	Transistor, 2SC1383(R)
Q9,14	89-107-335-61	Transistor, 2SA733K(P)
Q11,12	89-318-464-51	Transistor, 2SC1846(RS)
Q24,25	89-106-834-51	Transistor, 2SA683(RS)
Q16,26	89-407-624-51	Transistor, 2SD762(OP)
D1,2,3,4,5, 6,7,8,9,10, 11,13,18,19, 20,21,22	87-027-097-01	Diode, 1S1555
D12,14,15	87-027-365-01	Diode, S5277B
D16	87-027-475-01	Zener diode, HZ6B1
D17	87-027-509-01	Zener diode, HZ12B3
D23	87-027-479-01	Zener diode, HZ27-2
⚠S8	87-031-589-01	Push-switch (POWER)
SFR1	87-021-480-01	Semi-fixed resistor, 50kΩ-B
PIN-4	87-032-987-01	Pin, 4P
PIN-3	82-481-697-01	Pin, 5P
		< Resistors >
⚠ R23	87-029-094-01	15Ω ¼w Fuse resistor (E model only)
⚠ R23	87-029-017-01	10Ω ¼w Fuse resistor (K,G model only)
		< Capacitors >
C17,19	87-015-533-01	220μF 35V Electrolytic LL
C22	87-015-382-01	0.1μF 16V Tantalum
⚠ C40	87-019-105-01	0.022μF PP

≪PLUNGER CIRCUIT BOARD SECTION≫

PCB-G	82-157-613-21	Plunger circuit board
Q17,21	89-309-455-61	Transistor, 2SC945L(PQ)
Q18	89-108-854-51	Transistor, 2SA885(RS)
Q19,20	89-318-464-51	Transistor, 2SC1846(RS)
D24,25	87-027-097-01	Diode, 1S1555
D26,27,28	87-027-365-01	Diode, S5277B

≪SWITCH-2 CIRCUIT BOARD SECTION≫

Symbol No.	Part No.	Description
PCB-H	82-157-614-21	Switch-2 circuit board
S7	87-031-502-01	Rotary switch (REPEAT)

≪HALL IC CIRCUIT BOARD SECTION≫

PCB-I	82-157-616-21	Hall IC circuit board
IC2	87-027-478-01	IC, DN-6835

≪SUB CIRCUIT BOARD SECTION≫

PCB-J	82-157-618-21	Sub circuit board
	87-032-640-01	Pin, 10P

≪JACK-3 CIRCUIT BOARD SECTION≫

PCB-K	82-157-620-11	Jack-3 circuit board
J9	87-032-985-01	DIN socket, 8P (REMOTE)
PIN-5	87-032-995-01	Pin, 7P

≪LED-2 CIRCUIT BOARD SECTION≫

PCB-L	82-157-619-21	LED-2 circuit board
D1	87-027-543-01	LED, LN317GP (POWER)

≪METER CIRCUIT BOARD SECTION≫

PCB-M	82-157-622-11	Meter circuit board
IC701,702	87-027-594-01	IC, IR2E05
Q701,702	89-309-455-61	Transistor, 2SC945L(PQ)
D701,702	88-052-188-11	Diode, 1S188(FM)
SFR701,702	87-021-609-01	Semi-fixed resistor, 1kΩ-B

≪DOLBY CIRCUIT BOARD SECTION≫

	87-033-162-01	Dolby circuit board ass'y w/PCB-N circuit board

≪LED-3 CIRCUIT BOARD SECTION≫

D702,703	87-027-593-01	LED w/PCB O circuit board

≪SWITCH-3 CIRCUIT BOARD SECTION≫

	82-157-645-01	Push-key ass'y w/PCB-P circuit board

≪SWITCH-4 CIRCUIT BOARD SECTION≫

= "E", "K" model only

PCB-Q	82-157-606-11	Switch-4 circuit board
S10	87-031-460-01	Slide switch (INPUT SELECTOR)

≪DIN CIRCUIT BOARD SECTION≫

= "E", "K" model only

PCB-D	82-157-605-21	Jack-1 circuit board
PCB-R	82-157-610-01	DIN circuit board
Q203,204, 205	89-309-455-61	Transistor, 2SC945L(PQ)
D201	87-027-097-01	Diode, 1S1555
RY1	84-184-612-01	Reed relay, HA212N
J1,2,3,4 10	82-157-653-01	Jack ass'y (LINE IN/REC, LINE OUT/PLAY, DIN)

≪FUSE CIRCUIT BOARD SECTION≫

⚠PCB-S	82-157-608-01	Fuse circuit board
⚠F1	87-035-060-01	Fuse, "T" 800mA (E model only)
⚠F1,2	87-035-221-01	Fuse, "T" 800mA (K,G model only)
	87-098-015-01	Fuse label, "T" 800mA
⚠F2	87-035-222-01	Fuse, "T" 1A (E model only)
	87-098-016-01	Fuse label, "T" 1A (E model only)

Symbol No.	Part No.	Description
⚠	87-033-147-01	Fuse clamp
PIN-1	87-032-897-01	Pin, 3P

≪AC OUTLET CIRCUIT BOARD SECTION≫

= "E" model only

⚠PCB-T	82-157-654-01	AC outlet circuit board
⚠J12	87-049-014-01	AC ouetlt
	82-304-743-01	Terminal, 1P
⚠ F3	87-035-224-01	Fuse, "T" 1.6A
⚠	87-033-147-01	Fuse clamp

≪MISCELLANEOUS≫

⚠T1	82-157-635-01	Power transformer (E model only)
⚠T1	82-157-636-01	Power transformer (K model only)
⚠ T1	82-157-637-01	Power transformer (G model only)
RPH	87-046-177-01	REC/PB Head
EH	87-046-176-01	Erase head
M1	87-045-135-01	Motor, DC-EG
M2	82-319-617-01	Motor, DC (Sub)
SOL1	82-157-623-11	Solenoid
SOL2	82-304-640-11	Solenoid
S5	82-319-613-01	Micro switch (REC-INH)
S6	82-304-724-01	Micro switch (CASSETTE)
⚠	87-034-877-01	AC power cord (E model only)
⚠	87-034-872-01	AC power cord (K model only)
⚠	87-034-878-01	AC power cord (G model only)
⚠	87-085-166-01	Holder, AC power cord (E,K model only)
⚠	87-085-165-01	Cord bushing (G model only)
J8,11	87-049-007-01	Jack ass'y 2.5ϕ (TAPE TIME, PLAYER SYNC) (E,K model only)
J8	87-049-006-01	Jack ass'y 2.5ϕ (TAPE TIME) (G model only)
⚠J12	87-032-996-01	AC outlet (K,G model only)
CON-2	82-157-673-01	Connector ass'y, 3P
CON-3	82-157-674-01	Connector ass'y, 5P
	82-157-647-11	Ribbon cord
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	82-157-651-31	Ribbon cord
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